

NEW

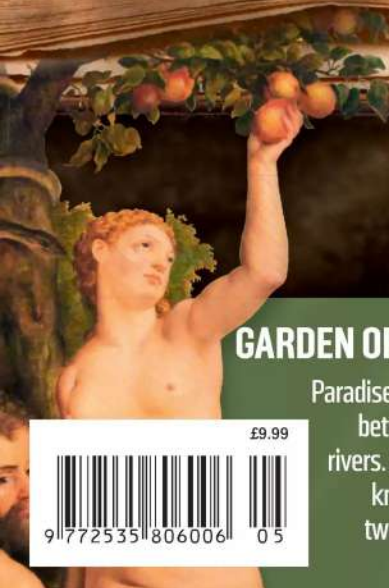
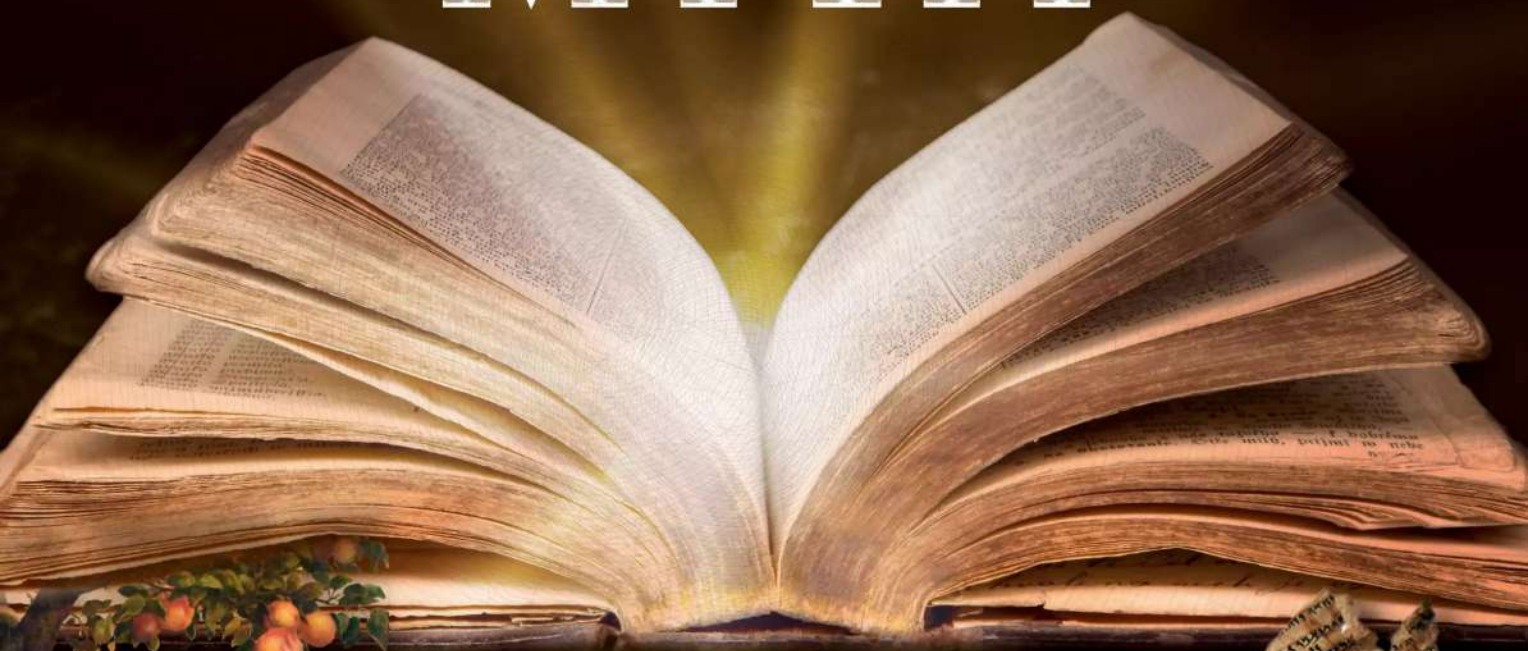


INSIDE HISTORY COLLECTION

BIBLE

WAS
JESUS
A REAL
PERSON?

HISTORY AND MYTH



GARDEN OF EDEN

Paradise is hidden between four rivers. Today, we know about two of them.

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FIGHTING THE PHILISTINES

The Israelites were surrounded by enemies, but the Philistines were the fiercest.



NEW ANSWERS

Researchers working on the Dead Sea Scrolls provide surprising new insight into the Bible.



Welcome

Although the Bible's message is aimed at believers, historians have also painstakingly delved into the Old and New Testaments, using the scriptures as a source to chart the period when the world's first civilisations were established. The Bible's stories may be impossible to verify from a historical perspective, but they could have their origins in real events. So, geologists hunt for the truth about the Great Flood and Noah's Ark, meteorologists and biologists try to explain what could have caused the Ten Plagues that struck Egypt, while scientists and scholars search for evidence of disasters that could have wiped out the cities of Sodom and Gomorrah.

This issue delves into the Bible's greatest enigmas, providing not only interesting reading but also prompting thought-provoking questions about how far apart science and faith really are.

Enjoy!

A large, stylized, light gray opening quotation mark is positioned at the top left of the page. The background is a dark, textured surface with a bright, out-of-focus light source in the upper right corner. On the right side, there is a small, torn piece of ancient parchment with Hebrew script.

Archaeologists
have found
thousands of tiny
pieces of parchment,
which they are trying
to put together.

” The work of collecting the Dead Sea Scrolls continues.
Read about the latest breakthroughs on pages 72-89.

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Fragment of a Hebrew manuscript, likely a scroll, showing several lines of text in Hebrew script. The parchment is aged and damaged, with significant tearing and missing sections. The text is written in dark ink on a light brown background. The visible text includes:

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The truth about the Old Testament

Could the Bible's tales of Paradise, Moses and Noah's Ark be true? Join archaeologists on a hunt for discoveries that would confirm the stories.

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The first Jews

In the Bible, the story of the Jews is the most in-depth account of one of the peoples of ancient times, yet we know surprisingly little about the first Israelites.

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What was the Middle East like in biblical times? Academics can now build up a picture of early cultures from ancient pottery shards and old beehives.

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Historians agree that Christ really lived but there the consensus ends, because piecing together his life up to his crucifixion has proved incredibly difficult.

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Insight into the Dead Sea Scrolls

The scrolls, found by a Bedouin in 1947, are the most important find of the century as they contain invaluable knowledge about the period around Christ's birth.

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Jewish rituals

Join scholars as they explore whether circumcision, kosher food and Hanukkah are rooted in ancient knowledge of hygiene, medicine and racial identity.

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Forbidden art

Medieval churches and books were plastered with erotic art and bizarre creatures, all with the church's approval – possibly to amuse the observers.

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The Bible describes in detail the story of Noah's Ark and where the great vessel ended up, which is why researchers are looking for evidence in the mountains of eastern Turkey.

The Ten Commandments

You shall have no other gods before me

You shall not misuse the name of the Lord your God

Remember the Sabbath day by keeping it holy

Honour your father and your mother

You shall not murder

You shall not commit adultery

You shall not steal

You shall not give false testimony against
your neighbour

You shall not covet your neighbour's house

You shall not covet your neighbour's wife, or his male
or female servant, his ox or donkey, or anything that
belongs to your neighbour

THE TRUTH ABOUT THE OLD TESTAMENT

It's easy to dismiss the Bible's dramatic narratives as works of fiction. But scientists today have explanations for how the cities of Sodom and Gomorrah could have suddenly disappeared and what caused Egypt's Ten Plagues. They have even found a clue to the location of the Garden of Eden.

In the 1860s, a young British researcher named George Smith made an unexpected discovery. On some 4,000-year-old Babylonian clay tablets, hidden in the storerooms of the British Museum, he found inscriptions with the names of Israelite kings that he knew from the Bible. Intrigued, Smith began looking for other connections between the inscriptions on the tablets and the texts of the Old Testament. He worked tirelessly in the semi-darkness of the storerooms, piecing together fragments of clay tablets, some only a few centimetres across. Smith's efforts proved fruitful; after months of work, his eyes fell on a passage that echoed the Bible.

It spoke of an old man, Utnapishtim, who took his family and an assortment of animals aboard a large boat as a tumultuous storm raged.

Unfortunately, the rest of the tale was missing, but the similarity to the Bible's story of Noah was clear to Smith. In his diary, he wrote excitedly about the discovery and reported that he was convinced there must be a connection between the two stories.

As a result, the following year Smith began excavating **King Assurbanipal's** ancient library in the city of Nineveh, in what is now Iraq. Here, 22

years earlier, British archaeologists had unearthed the Babylonian stone tablets that Smith had pieced together. Smith soon found what he was looking for. Out of the ground in Mesopotamia emerged another fragment with an inscription. The texts on the new find described how the god of wisdom, Ea, told Utnapishtim to build a boat to escape a great flood that was coming. Utnapishtim agreed.

” Smith soon found what he was looking for. Out of the ground in Mesopotamia emerged another fragment.

Then Ea said: “Leave behind possessions [wealth] and seek the living people. Bring inside the boat the seeds of all living creatures.” The tale continued on another tablet. “Bring in the sheep inside the boat ... birds, cattle and the creatures of the land.”

For Smith, the words were synonymous with the story of Noah in Genesis: “Go into the ark, you and your whole family ... Take with you seven pairs of every kind of clean animal, a male and its mate, and one pair of every kind of unclean animal, a male and its mate.” Smith couldn't believe that was mere coincidence.

The Black Sea caused the Flood

Today, Smith is credited as the man who found and interpreted the epic poem of the Babylonian king Gilgamesh, which is written on a series of tablets. Smith was also the first to find connections between the texts of the Bible and other ➤

KING ASSURBANIPAL reigned from 668 to 627 BC and is considered the last great king of the Assyrian Empire.



*Eve tempts
Adam in the
Garden of Eden.*

historical sources, thus initiating modern biblical scholarship. Smith died aged 36 of dysentery during an expedition in what is now Syria, but before that he was the first to find evidence that the Bible's account of Noah and the Flood could have been rooted in much older accounts.

According to biblical scholars, the tablets Smith found prove that the story of Noah's Ark is centuries older than the biblical narrative and had been written down much earlier, in Mesopotamia (modern-day Iran and Iraq).

These scholars argue that if there is a number of similar accounts, the likelihood increases that an event similar to the biblical flood took place in the Middle East thousands of years ago. That's why biblical scholars today are hunting for archaeological traces of such a deluge, so they can prove once and for all that the Bible is not just a holy text, but also a credible historical source.

If solid archaeological and scientific evidence for the Flood emerges, for example, the Bible could suddenly be cited as one of the earliest and most important sources of history.

Biblical scholars already have some support for a mighty flood thanks to geological studies that show that a gigantic inundation may have hit Mesopotamia several millennia ago. At the end of the last ice age, the Black Sea was an isolated body of water. Today's connection through the Bosphorus Strait only opened up as a result of natural geological movement around 9,400 years ago.

Theoretically, that event could have led to the Mediterranean suddenly flowing through the new Bosphorus Strait, potentially flooding an area around the Black Sea. If the new channel had caused a rapid rise in water levels, it could have forced the local population to flee – and given rise to the flood myth.

For archaeologists, every small find is therefore extremely important, and the work of verifying the Bible's texts is very special. Classified as biblical scholarship, it's a kind of reverse research, in which people try to confirm a theory for which no evidence yet exists.

Paradise is easy to locate

The first biblical scholar was George Smith, and he made his discovery in the archives of the British Museum at a time when science was busy replacing religion as the explanation for

life's mysteries. The clay tablet that spoke of a great flood formed part of a long poem about King Gilgamesh, the fifth king of the Assyrian-Babylonian dynasty. Since the king's name also appeared in other inscriptions of Babylonian rulers, Smith assumed that King Gilgamesh had been a historical figure – a conclusion supported by today's historians.

The tablets are therefore considered a credible historical source and can be used to examine the veracity of the Bible's accounts. If a story appears both in the Bible and on the Babylonian tablets of Gilgamesh, the probability that the event is rooted in historical events is deemed to be high.

And the Babylonian tablets actually describe several places, events and locations that also appear in the Bible. Among other things, the tablets describe a location reminiscent of the biblical Paradise.

"Here the lion does not kill, the lion and the lamb go together peacefully, and no one grows old or sick," it says – a description close to the Bible's description of the Garden of Eden, where the animals also live in peaceful harmony.

In paradise, Gilgamesh – like Adam and Eve – attains immortality, symbolised by a flower. The flower is eaten by a snake, however, and Gilgamesh's immortality is lost. Although there are slight variations, scholars believe that a parallel can be drawn with the story of Adam and Eve, who live immortally in Paradise until a snake tempts Eve to eat the apple from the tree of knowledge.

As with the account of the Flood, the Bible's authors may have drawn inspiration from the 4,000-year-old Mesopotamian myths of Gilgamesh when describing the biblical Paradise.

While the ancient tablets do not tell us where Gilgamesh's paradise was located, the Bible leaves no doubt on this point. Genesis 2:10 describes exactly where the Garden of Eden can be found – in a fertile area, watered by a river that splits into four headwaters:

"The name of the first is the Pishon; it winds through the entire land of Havilah, where there is gold ... The name of the second river is the Gihon; it winds through the entire land of Cush. The name of the third river is the Tigris; it runs along the east side of Ashur. And the fourth river is the Euphrates."

Pishon and Gihon are not known to academics, but the names Tigris and Euphrates are still used. The two rivers flow almost parallel through the most fertile part of present-day Iraq, before

Archaeology

The Ten Commandments



TWO TABLETS Some scholars believe that this carving found near Mount Sinai shows the two tablets on which the Ten Commandments were written.

emptying into the Persian Gulf. Paradise, in other words, was where the first civilisations arose, and quite conveniently where the Jews lived until Abraham migrated to the Promised Land. In this way, the Old Testament actually begins as a narrative of the Jews' earliest history – the time before the exodus from the city of Ur near the Tigris River to the land of Canaan.

The ark was 157 metres long

After the exodus from Ur, Abraham and his descendants faced a series of disasters: cities destroyed in firestorms, devastating floods and, of course, captivity in Egypt. One of the most popular modern theories is that the Bible's dramatic events were caused by natural disasters, which were interpreted at the time as God's punishment. So, too, with the account of the Flood.

According to Genesis 6:5-7, God flooded the earth because people sinned against his commandments. Only Noah, his wife and sons Shem, Ham and Japheth, and their wives were deemed fit to survive. Therefore, God told Noah to build an ark so that he, his family and some animals could survive the coming inundation. God

then caused rain to fall for 40 days and 40 nights. The water rose until even the world's highest mountains were submerged. Then God sent a powerful storm that caused the waters to abate.

Seven months and 17 days later, Noah, his family and the animals put their feet, paws and claws on dry land once more. If true, biblical scholars believe they will be able to find the ark, which is ➤

“Only Noah, his wife and sons Shem, Ham and Japheth, and their wives were deemed worthy of survival.”



Climate mapped with stalactites

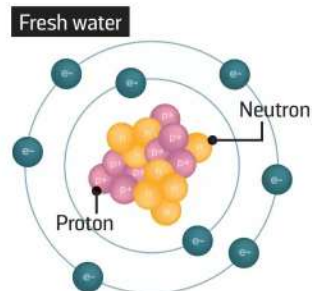
Sometimes the truth lies in the most surprising places. Thousands of years old stalactites have become one of the best tools scientists have for mapping past climates. By looking at the limestone structures of the stalactites in ancient caves, archaeologists can now tell exactly when major floods hit the land.

To determine whether the area near the Black Sea was ever subjected to a violent inundation that could have given rise to the story of the Flood, Bern University's Professor Dominik Fleitmann studied stalactites from the Sofular Cave in Turkey, near the Black Sea.

Based on isotope analysis of limestone deposits in the cave, the researchers were able to identify the periods when the Black Sea was connected to the Mediterranean and when it was an isolated inland water. The analysis shows that the opening of the channel between the two seas was gradual and that the area was never subjected to a sudden dramatic flood.

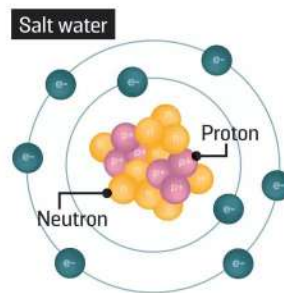
Scientists studied oxygen isotopes

1 An element such as oxygen is defined as having a certain number of protons in its nucleus. For example, oxygen has eight protons in its nucleus. But the same element comes in different varieties, called isotopes, which are defined by the number of neutrons with the protons.



Salt water has more neutrons than fresh water

2 Salt water and fresh water have different oxygen-isotope compositions. When water seeps down into some caves, it leaves limestone deposits that form stalactites, trapping information about the isotopes.



Floods captured in stalactites

3 Limestone uses oxygen in its formation. By analysing the weight of those oxygen atoms, scientists can assess whether it was salt or fresh water that formed the deposits at any given time. The cave must have been flooded when salt water formed the deposits, indicating a higher water level on the planet.



When water from the sea enters caves and caverns, the salt water leaves a distinctive trace.

described in the Old Testament as a huge and very special structure.

"The ark is to be three hundred cubits long, fifty cubits wide and thirty cubits high," God commanded. That's 157 x 25 x 15 metres.

The Old Testament also gives researchers a clue about where to search, saying that the ark ran aground on **Mount Ararat**. There's a mountain of that name in eastern Turkey, and numerous expeditions have searched it over the ages in the hope of finding signs of the biblical vessel. Two earthquakes, in 1948 and 1959, uncovered a rock formation in the area near the mountain that has the same dimensions as the ark. Some biblical archaeologists believe that the formation is a direct imprint of the ship, which according to the Bible was made of "gofer wood", probably cedar or cypress. Other researchers claim to have found the physical remains of wood from the ark. For example, in 2010 a team of Chinese biblical archaeologists published a report concluding that they had unearthed 5,000-year-old wood on Mount Ararat. The claim is highly dubious and has yet to be verified by others. At the same time, geologists conclude that the imprint the ark is supposed to have left on the mountain is simply a natural part of the rock formations.

The Black Sea is constantly changing

While remnants of the ark have proved difficult to find, scientists have had more success conducting geological surveys of floods in the Black Sea region. The work aims to prove or disprove the flood myth.

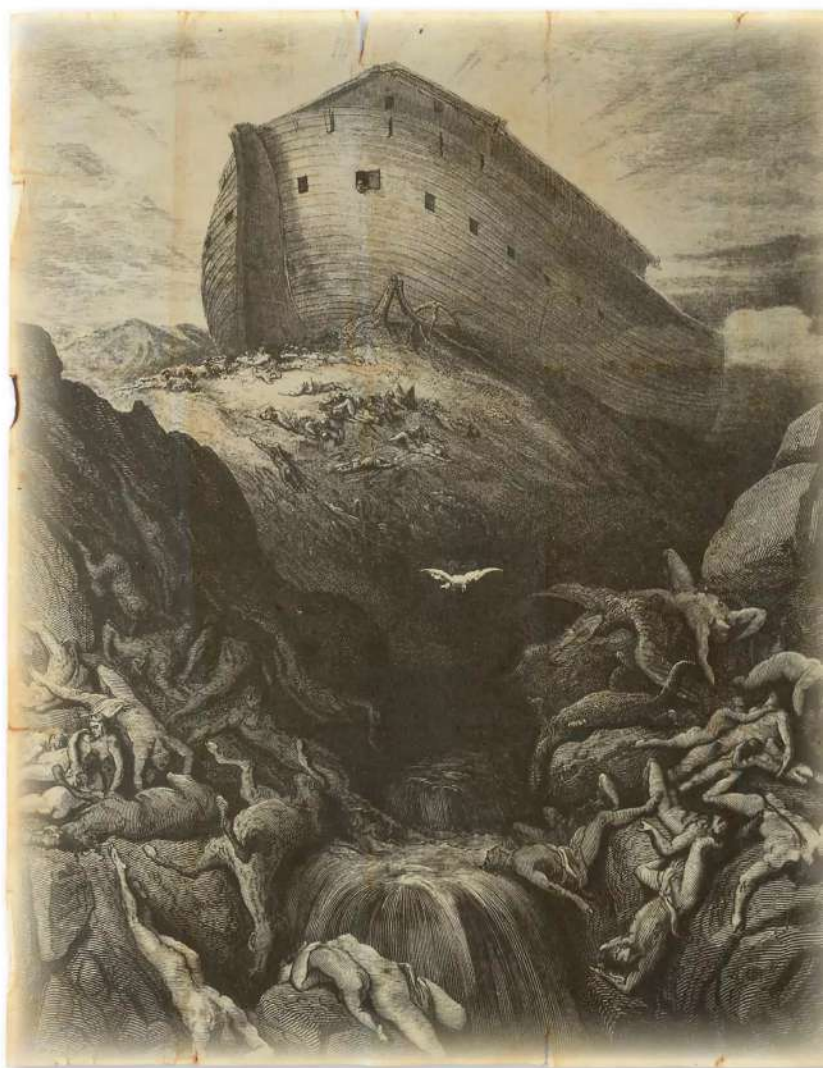
Geologists have studied well-documented floods with great accuracy. This has helped them discover that the Black Sea's volume has fluctuated greatly over time, making large tracts of land in the region uninhabitable during different periods.

Changes in global sea levels and local geology have meant that the Black Sea has for long periods been a land-locked lake, while at others – like today – it has been connected to the Mediterranean.

Studies of the stalactites in Sofular Cave in northern Turkey, near the Black Sea, show that water levels have never changed as a result of sudden catastrophes, but always gradually over hundreds of years.

Based on isotope analysis of limestone deposits in the cave, researchers from the University of Bern have also been able to draw a precise chronology of when the Black Sea was connected

” Researchers are particularly interested in the familiar stories: Adam and Eve, Noah's Ark, Moses and Egypt's Ten Plagues.



According to the Bible, the ark sailed for months before the water level dropped sufficiently for the earth to reappear.

to the Mediterranean and when the sea was actually an isolated fresh water lake. The analysis established that the current channel between the Mediterranean and Black Sea, the Bosphorus Strait, has developed gradually over a long time. In fact, it took between 700 and 3,000 years for the salt water from the Mediterranean and the fresh water from the Black Sea to mix completely.

Assyriologist Gojko Johansen Barjamovic also rejects a link between rising water in the Black Sea millennia ago and the Bible's dramatic flood narrative. A professor at Harvard University, Barjamovic has spent much of his academic life creating a chronology of the Middle East's earliest history based on finds and writings. He ►

MOUNT ARARAT

is a snow-capped dormant volcano on Turkey's eastern border, in Iğdır Province, 16 km west of the Iranian border and 32 km south of the Armenian border.

unequivocally rejects the idea that the account of the Flood is based on an historical disaster:

"There is not a shred of evidence that connects it to such an event. 9,400 years ago, hunter-gatherers lived by the Black Sea. Even if they experienced a flood there, it is unlikely that the story of the event would have survived for 5,000 years until ancient Mesopotamia," he says, drawing on his knowledge of ancient cultures.

Although no one has yet found concrete evidence that the story of the Flood should be taken literally, the accounts in the Bible and Gilgamesh's tablet are so similar that archaeologists are hopeful of finding more.

The story of Noah's Ark is of special note because it is so well known. In fact, researchers are particularly interested in the familiar stories: Adam and Eve, Noah's Ark, Moses and the Ten Plagues of Egypt, and the destruction of Sodom and Gomorrah.

While Adam and Eve and the Flood are described in other sources, there's no mention of

Moses in any contemporary texts. Here, biblical scholars have had to refer to climate experts, biologists and stalwart archaeologists to come up with plausible explanations.


The puzzle of Moses

The Bible offers plenty of details of how Moses delivered his people, the Israelites, from Egypt, where they had been held as slaves by the pharaoh.

According to the story, God visited a series of plagues on Egypt to convince the pharaoh to release the Israelites. The potentate initially refused, but when his son died, he finally relented.

"Up! Leave my people, you and the Israelites!" commanded Egypt's ruler when he grew tired of the torment, which included rivers of blood and swarms of crop-eating locusts.

Then the Israelites – led by the 80-year-old Moses – set out into the desert, where they wandered for 40 years, searching for the land of Canaan, which God had promised the Israelites. On the way, Moses climbed a mountain where he



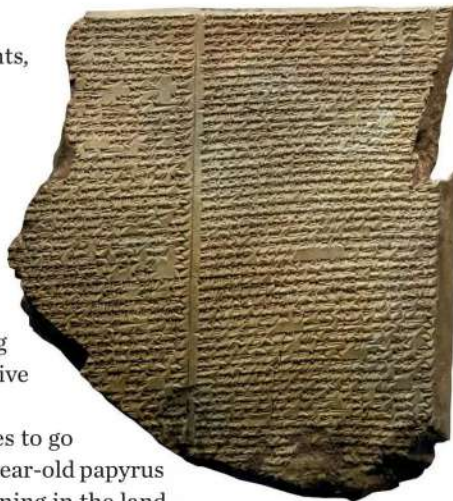
In the 1980s, a US archaeological expedition claimed to have found the outline of Noah's Ark on Mount Tendürek in eastern Turkey. However, geologists estimate that the ship-like shape the expedition found is just the result of natural rock formations.

received God's Ten Commandments, which he carved on stone tablets.

Evidence is missing

History, here, is crucial for both Christians and Jews, because the Ten Commandments are believed to have come directly from God and form one of the key tenets for both religions. Verifying every aspect of the biblical narrative is virtually impossible, however.

Historians do have some sources to go on, though. These include 4,000-year-old papyrus texts that describe plagues happening in the land of Egypt, geological evidence that points to a change in the climate 3,700 years ago that could have led the Israelites to migrate east from their former location in the Nile Delta region, and a 3,500-year-old Egyptian account of a group of soldiers caught in a huge tidal wave at the Shi Hor lagoon (now known as Shamal Sina) located in the



The British Museum in London holds the 2,700-year-old Babylonian Gilgamesh tablet. The early eighteenth-century translation caused a stir because it described an event similar to the great flood reported in the Bible.

northern part of the Sinai Peninsula.

At the same time, Moses himself is absent from all these sources. He isn't mentioned in Egyptian records until around 200

BC, a full millennium after the Bible narrative supposedly took place. Since the evidence is thin and spans a period of 500 years, it's most likely that the account of the Israelites' flight from Egypt was pieced together from different events.

The lack of historical sources naming Moses has led researchers to analyse individual

Continued on page 21



The imprint is 164 metres long – close to the 157-metre length described in the Bible.

Mount Tendürek is located in the same area as Mount Ararat – another site that is frequently proposed as the point where Noah's Ark made landfall after the Flood.



Could Egypt's Ten Plagues have a natural explanation?

Although the story of the Ten Plagues might seem like simple fabrication, in recent years researchers have tried to explain how the plagues could have happened. According to scientists, the plagues could have been caused by specific climatic conditions that triggered a chain reaction of blood-red rivers, dead frogs and billions of locusts.

PLAGUE 1: Nile's water turns to blood

Disaster begins with algae bloom

Scientists today suggest that it is possible that the Nile could have seemed to have been "changed into blood" as described in Exodus, causing fish to die. Several cities around the Mediterranean were inexplicably abandoned around 3,000 years

ago, including the ancient city of Pi-Ramesses in the north-eastern Nile Delta, where some archaeologists claim the story of the Ten Plagues took place. A dried-up Nile could explain both why the Egyptians abandoned their cities and the river turning red.



Drought hits Egypt

1 Radiometric dating of minerals and analysis of tree rings and pollen seeds suggest that after a long period of lush vegetation, there was a sudden shift to drought, which dried out the Nile.



Algae blooms

2 A type of blue-green algae called *oscillatoria rubescens* thrives in warm, stagnant water. In the right conditions, an overgrowth of algae can colour the water red.

PROBABILITY

The climatic changes detected suggest this plague could be rooted in reality, but the type of algae that could cause such discolouration has not been recorded in sufficient quantities since for it to be universally accepted as the explanation.



Fish die

3 Blue-green algae are technically bacteria and produce toxins called microcystins. That's why an algae bloom could have made the water of the Nile toxic for humans and killed the river's fish, as described in the Bible's first plague.



In 2016, Iran's Lake Urmia was dyed red over the course of a few months. The colour change was documented by NASA's Aqua satellite. However, as Lake Urmia is a salt water lake, different algae are at play than the algae that could potentially have dyed the Nile red.

The plagues continue with insects

The parched, red Nile starts a chain reaction that gives frogs and then insects free rein, according to the scientific interpretation of Egypt's plagues. The El Niño weather phenomenon lends some support to the theory. Every few years, El Niño affects the

weather, increasing the surface temperature of the Pacific Ocean off South America. Years of El Niño have affected the weather in countries such as Sri Lanka, Peru and Kenya, which have subsequently been hit by insect-borne epidemics.

PROBABILITY

After the algae bloom in the Nile, wildlife in and around the river could have been affected and the food chain thrown out of balance. But this theory cannot be proven and it is uncertain how important frogs are in regulating mosquito and fly numbers.



Warm water makes frogs thrive

1 The drought – and El Niño – warmed the waters of the Nile, increasing the rate of development from tadpole to frog. As the waters of the Nile dried up, amphibians may have migrated towards the city in search of water. The frogs could have invaded houses, trees and temples.



Egypt's mosquitoes flourish due to the climate

2 In the earliest versions of the Bible, the Hebrew word *kinim* describes the insects of the third plague. This refers to a special type of small mosquito. Their numbers can explode in years when the El Niño phenomenon occurs, if optimal breeding conditions exist.

Flies lay eggs in dead fish

3 The stench of dead fish in the Nile could have attracted swarms of flies. The soft, decaying flesh would have provided the perfect nursery for flies to lay their eggs, as the dead flesh would have nourished the larvae as they developed into adult flies. Flies could have been given free rein after their natural predators, the frogs, left the banks of the dry red river.



In 2015, thousands of frogs in Germany left their watering holes to find food further inland.

PLAGUES 5, 6: Beasts die and disease strikes

Mosquitoes spread disease

According to the Bible, the next plague caused an epidemic that affected "horses, donkeys and camels" and "cattle, sheep and goats". One theory suggests that they must have been infected with two closely related mosquito-borne viruses. With an increased population of mosquitoes, Egypt may have been hit by epidemics

that killed all livestock and gave humans abscesses. Scientists, however, disagree widely about which diseases could have been involved. The theory also struggles to explain why the Egyptians succumbed but not the Israelites. The best explanation is that the Egyptians lived closer to the Nile than the Jews.

PROBABILITY

Although there is a well-established link between natural disasters and the outbreak of disease, it's a considerable leap to link the fourth and fifth plagues as part of a single chain reaction. The animal diseases are based on educated guesses, while the human afflictions seem an unlikely consequence.



Disease hits hooved beasts

1 The disease bluetongue causes fever and swollen, blue tongues in ruminants and can be deadly in some breeds of sheep. African horse sickness is also known to trigger similar symptoms and kills up to 90 percent of infected horses, mules and donkeys. The two diseases are mainly transmitted by insect bites.



Insect bites could be fatal

2 Humans rarely catch bluetongue, so the sixth plague's boils must have had another cause. Some scientists have proposed glanders – a bacterial disease that can cause lymph nodes to swell and ooze pus. The infection is spread through contact with horses, and those with wounds to their skin, such as insect bites, are at greater danger of contracting it.



In El Niño years with heavy rainfall, Kenya is often invaded by mosquitoes that infect cattle with Rift Valley fever, which, unlike bluetongue, can be transmitted to humans. In 2007, an outbreak of the disease killed 900 people and cattle worth 32 million dollars.

Volcanic eruption is the next piece of the puzzle

According to the Bible, Egypt was then hit by a trio of natural catastrophes: first killer hailstorms, then swarms of locusts and finally three days of darkness. The most popular explanation posited by scientists claims that the plagues were caused by a huge volcanic eruption on the island of Santorini, north of Crete. The Thera volcano erupted around 1600

-1620 BC, throwing billions of tonnes of ash into the atmosphere. Some archaeologists claim the eruption triggered the plagues, turning the Nile red and creating acid rain that caused boils. Either way, the eruption was so violent that it may have triggered a worldwide climate disaster that destroyed harvests as far away as China.

PROBABILITY

The volcanic eruption on Santorini may well have had consequences in Egypt, but most experts believe the ash cloud was blown in the opposite direction. The timing of the eruption, 1600-1620 BC, also does not fit with the reign of Rameses II, when the Ten Plagues are supposed to have occurred.



Particles turn to hail

1 When particles from a volcano are ejected several kilometres into the stratosphere, they collect tiny droplets of water vapour, which grow and freeze into ice lumps. The ice can land as hail the size of fists. If an eruption brought such a storm to Egypt, the hail could have had the devastating effect described in the Bible.



The storm brings life

2 Precipitation, including hail, provides food for locusts and a habitat for insects to lay eggs. Locusts normally live alone, but in the right conditions, which include droughts, they gather in giant groups to forage together.

Ashes cover Egypt

3 The ash cloud could have plunged the Nile Delta into darkness. Scientists estimate that the cloud reached 30-35 km into the air. If the particles in the cloud were the right size and moved south-east across Egypt, they could have blocked out the light for days.



Egypt and other countries are often plagued by infestations of locusts, which can eat their own weight in crops every day.

PLAGUE 10: Firstborn die

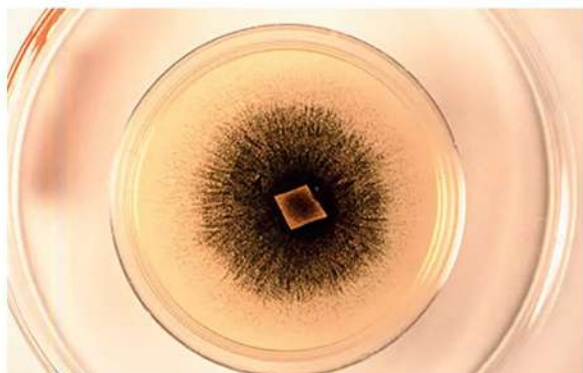
Fungus in the grain kills sons

While the first nine plagues can be partly explained by science, there is considerable disagreement about the final plague, which immediately killed all firstborn Egyptian sons. Some scholars avoid describing the last plague altogether because they believe it is due to a translation error. Others argue that the tenth plague was added and given

unnecessary weight because Ramesses II's eldest son happened to die of typhoid fever. There are some academics, however, who believe that the previous nine plagues created a fungus in the remaining grain, which unwitting parents prioritised for their firstborn sons. This may also explain why it affected Egyptian children and not the Israelites.

PROBABILITY

Although spoiled grain can be deadly, especially for starving children in ancient times, this theory is based on pure conjecture. Neither the Bible nor any other historical source mentions an increased infant mortality rate among firstborns during times of famine.



The mould grows in wet grain

1 After the previous plagues, the Egyptians were probably desperate to secure the last grain from the field, even though it was really too wet to harvest. Stored in warm silos, the wet grain could have provided optimal conditions for the growth of the black *stachybotrys chartarum* mould, giving rise in turn to deadly mycotoxins



Killer hiding in the bread

2 With famine in the land, the Egyptians would likely have ground the toxic grain into flour and used it to bake bread. The theory is that the firstborn sons were allowed to eat the bread first, as was the custom in Egypt in the late Bronze Age. This right of first refusal put the eldest son at greatest risk of poisoning and death from ingesting the toxins.

In the 1990s, 12 infants died within a ten-mile radius in Cleveland, Ohio, after a flood left black mould in basements. According to doctors, the children died from inhaling mould spores, which caused suffocating bleeding in their lungs.



events from the narrative instead. One of the most fascinating passages describes how Moses stopped the pharaoh's army pursuing the Israelites by parting the waters of the Red Sea.

According to Exodus 14:21, "Moses stretched out his hand over the sea, and all that night the Lord drove the sea back with a strong east wind and turned it into dry land. The waters were divided." The Israelites crossed the mighty sea with dry feet, but when the pharaoh's soldiers tried to follow, God stopped their chariots and then instructed Moses to release his hold on the waves.

"Moses stretched out his hand over the sea, and at daybreak the sea went back to its place. The Egyptians were fleeing toward it, and the Lord swept them into the sea," the Bible says.

Strong winds divide the waters

The idea of the waters parting runs directly counter to all reason and scientific thought. Such an event is not completely impossible, however. At least, that's the view of a group of American scientists who, in 2010, discovered that special weather and wind conditions can create a kind of passage through even large ocean areas.

According to the researchers, the phenomenon can occur when a strong wind blows across a river or a shallow lagoon – conditions that may have been present in Moses's case. A computer simulation created by the researchers showed that a storm blowing at 101 kilometres per hour for 12 hours could create a passage for as long as four hours.

"The wind moves the water in a way that's in accordance with physical laws, creating a safe passage with water on two sides, and then abruptly allows the water to rush back in," says Carl Drews of the US National Center for Atmospheric Research.

The theory that a particular weather phenomenon opened the sea to Moses is pure scientific conjecture. That's why divers and archaeologists have been searching for decades for traces of the pharaoh's lost army in the Red Sea. Despite their best efforts, however, they have found no evidence of soldiers, horses or war equipment under the waves. Since the pharaoh's army at the time consisted of around 250,000 soldiers – a force that would surely have left traces if the story were true – the absence of any evidence undermines the story's credibility.

Historians are also sceptical for other reasons. A number of sources report that the Egyptians

MOUNTAIN Rock from near Har Karkom mountain in the Sinai desert.

CARVING Biblical scholars believe this shows a tablet with God's Ten Commandments.

Archaeology

The Ten Commandments

were involved in numerous battles and conflicts with their arch-enemy the Hittites in the period following Moses's supposed flight from Egypt. The Hittites, like the Egyptians, were considered one of the region's military superpowers, and they would certainly have overwhelmed a greatly reduced Egyptian army, but there is no suggestion of this.

There is therefore no concrete evidence, findings or texts to support the story of the Israelites' flight from Egypt. Most historians are also sceptical about the likelihood that the rest of the story could have taken place as the Bible describes. According to the Old Testament, Moses continued into the Sinai Desert, where he and his people wandered for 40 years.

The Bible records that Moses's followers numbered "about six hundred thousand men on foot, besides women and children".

Biblical scholars estimate that the group as a whole must have numbered about two million people, once women and children

were counted. A human group of that size must have had very large camps, academics suggest. Yet, so far, archaeologists have failed to uncover a single bone, post hole or hearth remnant to support the claim that a mass of people was in the Sinai Desert around 3,000 to 4,000 years ago.

The mountain of God has moved

In return for giving the Israelites the land of Canaan, God commanded Moses and his people to keep his law. The Ten Commandments of the covenant were given to Moses personally by God on a high mountain, according to the Bible.

"On the first day of the third month after the Israelites left Egypt ... they came to the Desert ➤

“The Bible tells us that Moses led "six hundred thousand men on foot, besides women and children".

of Sinai. After they set out from Rephidim, they entered the Desert of Sinai, and Israel camped there in the desert in front of the mountain. Then Moses went up to God," **Exodus** 19 states.

Rephidim is no longer on the map and precise knowledge of its location has been lost. Scholars believe that the name refers to the present-day Wadi Feiran, a long, wide river valley near Mount Sinai. For a long time, archaeologists believed that this was the mountain where Moses received the stone tablets from God.

So far, however, the oldest traces of humans found on the mountain are dated to several hundred years after the birth of Christ. The lack of any older evidence has led biblical scholars to look elsewhere in the Sinai Desert.

One of the most recent proposals for God's mountain is the 487-metre-high Har Karkom in the south-western Negev desert. From a scientific point of view, the location is far more logical. Mount Sinai is in the south of the peninsula, while Har Karkom is in the north – and thus on a direct route between Egypt and the land of Canaan.

According to Exodus 24:4, Moses "built an altar at the foot of the mountain and set up twelve stone pillars representing the twelve tribes of Israel", and at the foot of Har Karkom, Italian archaeologists have excavated 12 pillars and the remains of an altar, all in stone, near a Bronze Age campsite.

According to biblical scholars, the findings prove that Har Karkom,

and not Mount Sinai, is where Moses encountered God. Har Karkom is said to have been a shrine where other peoples and faiths worshipped the gods for thousands of years – a suggestion that biblical scholars say only strengthens the theory that Har Karkom was God's mountain. Carved into a rock near the site, Italian archaeologists have also found an image with ten squares, which they believe to be reminiscent of the two stone tablets Moses is said to have brought down from the mountain.

Could the Moses puzzle be solved?

If you go along with the idea that Har Karkom is the mountain described in the Bible, then Moses's migration can be dated quite accurately to 2200 BC – about a thousand years earlier than most scholars have previously suggested.

If this date is correct, Moses's life and journey fit more easily into our understanding of historical events. If the Israelites' flight from Egypt took place around 2000 BC and not 1000 BC, as scholars have long believed, Moses's escape tallies with the story of Sinuhe. This ancient tale tells of an Egyptian official who fled to the land of Canaan in 1900 BC, ultimately becoming a powerful man who defeats a Syrian king in battle. Who Sinuhe was, and whether he was an Israelite, is unfortunately unknown.

Although evidence suggests that elements of the account of Sinuhe's deliverance from Egypt may be rooted in real events, researchers believe that the story as a whole is quite improbable: an 80-year-old man

EXODUS

is the second of the five Books of Moses that make up the first part of the Old Testament.



could hardly wander so far or climb a mountain, and a mass of, if not millions, then hundreds of thousands of people, could not have survived in the barren desert without leaving a single trace.

Yet the story may contain a kernel of truth. Egypt was a political and military power in ancient times, and small communities of people oppressed by the Egyptian empire probably lived in the area that today constitutes Israel, Syria and other countries of the eastern Mediterranean, known as the Levant. The story of Moses is “at best a refracted folk memory of earlier expulsions of Levantine people”, as Cyprian Broodbank of the University of Cambridge told *The Washington Post* in 2014.

Search for Sodom and Gomorrah

Either way, the story of Moses is one of the most dramatic in the Bible, and one that most people know. Equally violent is the account of Sodom and Gomorrah. The cities, according to the account in Genesis, were so full of sinful people that God destroyed them all in a doomsday event that called down brimstone and fire.

“The Lord rained down burning sulphur on Sodom and Gomorrah ... Thus he overthrew those cities and the entire plain, destroying all those living in the cities – and also the vegetation in the land,” says Genesis 19:24-25.

However, neither Sodom, Gomorrah nor the catastrophe that supposedly wiped out the two cities left any trace. Nevertheless, a number of biblical experts and archaeologists are convinced that the story of the cities’ fate reflects real events and is not just a myth.

One of them is Graham Harris, a retired geologist who has studied the conditions between modern-day Israel and Jordan, the area where Sodom and Gomorrah were located according to



Archaeologists have excavated the ancient walls of Jericho. Evidence suggests that the city was completely destroyed in 1400 BC.

the Bible. Harris is convinced that the region’s subsurface has the right geological conditions for a major earthquake that could trigger a landslide. Such a landslide could – theoretically – have swallowed up Sodom and Gomorrah, wiping them from the face of the earth forever, Harris claims. According to his theory, gas deposits underground could have caused an explosion filling the air with sulphur and fire, as described in Genesis.

The theory is partly confirmed by new findings that suggest that the area was hit by a powerful earthquake in the Bronze Age. Geological studies show that the quake measured at least ➤

Continued on page 28

According to the Bible, Jericho’s protective walls collapsed following trumpet calls. The city was then destroyed by the Israelite army.





INTERVIEW

Dr Phillip Silvia is the scientific director of the Tall el-Hammam archaeological excavation.

Phillip Silvia is an engineering graduate and professor at Trinity Southwest Christian University in New Mexico, USA. He holds a PhD in archaeology with a special focus on the Bronze Age in the Middle East.

Sodom was wiped out by a meteor

Although the conclusions drawn by Dr Phillip Silvia from his discoveries near Tall el-Hammam in Jordan remain controversial, the professor himself has no doubts. He believes that they may have discovered the remains of the biblical city of Sodom and that it was wiped out by a powerful force from above.

? What kind of settlement was the biblical city of Sodom, and what role did it play in the area in biblical times?

The part of the Bible that tells of the sinful cities of Sodom and Gomorrah being destroyed by God is set in the early Bronze Age. Genesis chapter 10, which describes the land of Canaan, including important cities, mentions "Sodom and Gomorrah" and "Admah and Zeboyim" in pairs, a form of writing that we now know indicates they were city-states.

Since Sodom and Gomorrah are mentioned first, the cities must have been the dominant city pair. Of the two cities, Sodom is mentioned first and must therefore have been the more important of the two. In other words, the Bible portrays Sodom as the capital of a city-state and therefore an important city in the Bronze Age.

Sodom and Gomorrah and Admah and Zeboyim were all well-established, fortified cities during this period – we're pretty sure of that because fortification of cities began in the Early Bronze Age, around 3000–2700 BC. If the city

we've found really is Sodom, we can learn a lot by examining its location and its archaeology. The site was by far the largest fortified urban centre in the southern Levant [eastern Mediterranean region] from the Middle Bronze Age, or what the Bible calls the Age of Abraham. The area within the walls of the fortification is about 1,000 metres long and 600 metres wide.

The only other urban centre of comparable size was Hazor in Galilee, in northern Israel. Tall el-Hammam, as the area where we found the city is called, is surrounded by many smaller town centres and villages.

? What happened to Sodom and Gomorrah according to the Bible?

According to the Bible, Sodom and Gomorrah and other cities on the plain of Kikkar were completely destroyed by God. The same fate befell the people, livestock and crops of the plain, as well as the fields on which the crops grew.

? What are your thoughts on the Bible as a historical source?

Most archaeologists dismiss the Bible as an unreliable historical document because the Scriptures contain so much

talk about God. Surprisingly, they accept virtually any other ancient document as completely reliable, even if it contains as much or even more talk about God. For us, the Bible is an important historical document that can help uncover knowledge about the earliest civilisations.

? What makes you think you've found the biblical city of Sodom?

Archaeologists began the search for Sodom using geographical clues in Genesis 13, which tells of the destruction of Sodom and Gomorrah. They then mapped the plain around the River Jordan – referred to in the Hebrew text as Kikkar ha-Yarden. Based on size and location, they identified the town

The Early Bronze Age began around 3000 BC in the Middle East. It is marked by the use of bronze and an early writing system.



Archaeologists excavate the Tall el-Hammam site. The city they found covers 36 hectares and was surrounded by a wall in the Bronze Age.

of Tall el-Hammam as the most likely candidate for the town of Sodom. So the excavation project began with the understanding that Tall el-Hammam was probably one and the same as Sodom.

? To what extent do your findings correspond to accounts in the Bible?

Only five sites that were inhabited at the time of the devastating incident have been excavated in the area: Jericho on the western side of the Jordan plain and

Tall el-Hammam is the centre of an excavation that has been taking place since 2005. The site is located in western Jordan, close to the Dead Sea.

Tall Iktanu, Tall Nimrin, Tall Kefrein and Tall el-Hammam on the eastern side. At all five sites, excavations have confirmed that complete destruction of the area took place near the end of the Middle Bronze Age. The date has been established by examination of pottery

found at the site and by carbon-14 analysis to be around 1700 BC.

In our opinion, the degree of destruction described in the Bible is 100 percent consistent with the degree of damage that we can infer from the

archaeological evidence. We have no doubt that the Bible's account of mass destruction is rooted in an historical event. The next step is to see just how accurate the Bible is – and whether we can find Sodom and what caused its destruction.

? You think the Bible has been misinterpreted – what is the error and why is it important in the story of Sodom?

Some misunderstandings have crept into the translation from Hebrew to English in Genesis. The misunderstandings arose



in 1611 with the King James version of the Bible.

First, "brimstone and fire" or "burning sulphur" is translated from the Hebrew words *gophrite* and *esh*. Throughout the Old Testament, *esh* is translated as "fire", so there is no dispute about what that word means. On the other hand, there is more doubt about the word *gophrite*. The word occurs only seven times in the Old Testament. Although it is consistently translated as "sulphur", there is nothing in the Hebrew word that requires it to be a chemical compound containing sulphur. The point is important because the word sulphur has led scholars to

believe that the incident at Sodom was caused by a volcanic eruption or an earthquake in which released sulphur poured out of the ground. We believe, however, that the word means stone, and in fact the phrase in the King James Bible should have been translated as "stone and fire". If our theory is right, it would provide a completely different explanation of what happened at Sodom. From this point of view, the text would read that "the Lord

The Bible tells us that Sodom and Gomorrah were destroyed by God. As Lot and his family were fleeing the city, his wife disobeyed God's instructions and turned around to look at the two cities in flames. She was instantly turned into a pillar of salt.

rained ... stone and fire from out of heaven".

The mistranslation of the word sulphur has long led scientists astray, and for years archaeologists searched for Jericho in the wrong place: the southern end of the Dead Sea, where there is a relatively high quantity of sulphur in the soil

Because almost all archaeologists since the beginning of the twentieth century have ignored the geographical data found in Genesis chapter 13 and instead have focused

Both volunteers and professionals help with the excavations, which reveal new layers of the area's history every year.



“The mistranslation of the word sulphur has long led scientists astray.

on looking for the King James Bible's "brimstone" in the wrong place, no archaeologist has ever managed to find a site that can reasonably be considered to be a candidate for Sodom.

? **How did the inhabitants of Sodom experience the explosion and the days and weeks after the disaster?**

No one within a 25-kilometre radius of the city survived the devastating event. According to Genesis 19:27-28, on the morning after the event, Abraham looked down from the mountains of Judea toward Sodom and Gomorrah and the surrounding plain, and he saw thick, black smoke rising. The text does not say how long the fire continued.

? **What kind of evidence have archaeologists found to confirm that the site was abandoned after a catastrophic event?**

We prefer to call it a break in the settlements rather than "abandoned". Excavation reports from the eastern part

of the Jordan plain show that the area was settled continuously from the Early Copper Age (around 4600 BC) or perhaps the Late Stone Age, and that settlement continued without interruption into the second half of the Middle Bronze Age.

An extensive survey carried out on the eastern side of the Jordan plain in 1976 identified over 120 sites with the same settlement history. The settlements varied in size from seasonal camps to large urban centres, such as Tall el-Hammam. All of these sites experienced simultaneous destruction in the Middle Bronze Age followed by a 600 to 700-year hiatus in settlement.

The pause lasted throughout the Late Bronze Age. The break in settlements was first discovered during excavations at Tall Nimrin [which is identified with the site of the biblical city of Admah], but can also be inferred from excavations elsewhere. We started the work expecting to find traces of the pause in the settlements, and the expectation was confirmed.

Civilisation returned to the region in the Iron Age around 900 BC, mainly in the form of small settlements or garrisons built where the major sites once stood. Tall el-Hammam, the site of Sodom, was also rebuilt, including large warehouses. All these Iron Age settlements were destroyed either by the Assyrians around 586 BC or by the Babylonians in about 530 BC.

During the excavations, archaeologists have found pottery shards, remains of buildings and layers of soil that testify to a violent and sudden destruction.

? **We have seen evidence and heard eyewitness accounts of the devastating Tunguska event in Russia, which on 30 June 1908 felled 2,200 square kilometres of forest in Siberia. How do you compare the destruction of the city of Sodom with the Tunguska explosion?**

We estimate that the Kikkar event that destroyed Sodom was a meteorite

explosion in the same class as the Tunguska event. It is now impossible to estimate the height of the explosion and the force of the impact, but all civilisation within 500 square kilometres was abruptly wiped out by the meteor's impact.

? **Did you encounter any surprises at all during the archaeological excavations?**

The biggest surprise has been the remarkable coincidence between the description in the biblical text and the physical evidence we have found. This coincidence applies both to the size and grandeur of Tall el-Hammam – assuming that the site is indeed Sodom – and to the scale and consequences of the devastating event.

? **What will happen to the excavations now?**

We continue the excavations of Tall el-Hammam. We're concentrating on excavating a palace from the Middle Bronze Age. We are constantly on the lookout for physical evidence that will help us better understand the people who inhabited the area and the event that ended their existence.





Known as Lot's Wife, this rock formation on Mount Sodom near the Dead Sea was supposedly created when Lot's wife was transformed into a pillar of salt after she looked back to see Sodom and Gomorrah destroyed.

the glaze of the ceramics show that the temperature was extreme, and other findings of small grains of minerals indicate that a strong wind carried particles from the explosion. The area had been inhabited for 2,500 years in the Bronze Age before the site was suddenly laid to waste, say the researchers, who estimate that it took 600 years for the area to be cultivated again.

Whether Tall el-Hammam really is the site of the biblical Sodom, and whether the explosion occurred in the way the researchers suggest, is unclear. But science has recorded similar events before. For example, an area of almost 2,000 km² was devastated when a meteor exploded near the Podkamennaya Tunguska river in Siberia in 1908.

six on the Richter scale. During excavations of the Bronze Age settlement of Numeira on the Dead Sea coast, archaeologists found the skeletons of three men. From the way the bones of the dead were crushed, researchers concluded that the men were killed by a violent force. Carbon-14 samples from a beam found near the dead dates the event to 2350 BC – the Early Bronze Age. The researchers believe the beam was part of a tower that collapsed due to the earthquake, crushing the unfortunate men.

Meteor destroyed all life

In November 2018, a team of archaeologists from the US launched a new theory about the fate of the cities. The team, led by archaeologist Steven Collins of Veritas International University, has spent several years studying the Bronze Age city of Tall el-Hammam in Jordan, which it believes is the site of the Bible's Sodom. According to the team, the city was destroyed when a meteor exploded high in the atmosphere 3,000 years ago. The explosion meant the end not just of Sodom and Gomorrah, but of all living things in a 50-kilometre-wide zone, which lies immediately north-east of the Dead Sea.

Using carbon-14 dating, archaeologists have discovered that almost all the mud walls perished around 3,700 years ago, leaving only the stone foundations of the buildings. The researchers also discovered evidence that the surface of pottery found in Tall el-Hammam had melted. Crystals in

Did Jericho's walls fall?

The search for biblical cities has a long history. As early as 1868, British archaeologist Charles Warren identified Tell es-Sultan as the site of Jericho, the first city the Israelites occupied in Canaan. Moses never made it to the city; his successor, Joshua, led the siege. According to the Bible, when the city didn't quickly succumb, Joshua used noise to topple the walls:

"When the trumpets sounded, the army shouted, and at the sound of the trumpet, when the men gave a loud shout, the wall collapsed; so everyone charged straight in, and they took the city."

During excavations in the 1930s, archaeologists did indeed find a network of walls that had clearly collapsed during violent events around 1400 BC. But 20 years later, archaeologist Kathleen Kenyon surveyed the area and, on the basis of new finds, concluded that the destruction of Jericho took place around 1500 BC. The new date fitted with an Egyptian attack known from historical sources.

Thus, like so many other biblical puzzles, the search for the Bible's Jericho culminated in a dead end. Researchers may find small pieces of the archaeological puzzle, such as inscriptions and burnt pot shards, but key evidence is missing. Despite hundreds of years of study, whether the Old Testament is rooted in real events remains a matter of conjecture, or perhaps faith. What the future of biblical scholarship and archaeology will bring only God knows. ■



WE KNOW FOR SURE

The Bible's stories appear in other sources

- The Bible's accounts of the Flood and Paradise are almost identical to sources originating in the Sumerian culture.
- Jericho was an important city in the Bronze Age that was protected by mighty walls for the age. The base of the walls can still be seen.
- A man named Goliath lived in the early Iron Age in Gath, one of the Philistine cities. Who he was, we do not know.

80

years old. According to the Bible, that was Moses's age when he fled Egypt with the Israelites. According to the Bible, he lived for another 40 years.



WE NEED ANSWERS

Did the Israelites migrate from Egypt?

1 Researchers have yet to find any conclusive evidence of a mass exodus from Egypt to Canaan, the land God promised to Moses and the Israelites in the book of Exodus. Over the years, archaeologists have found

the remains of enclosures bordered by low stone structures and pottery shards dating back to the early Iron Age.

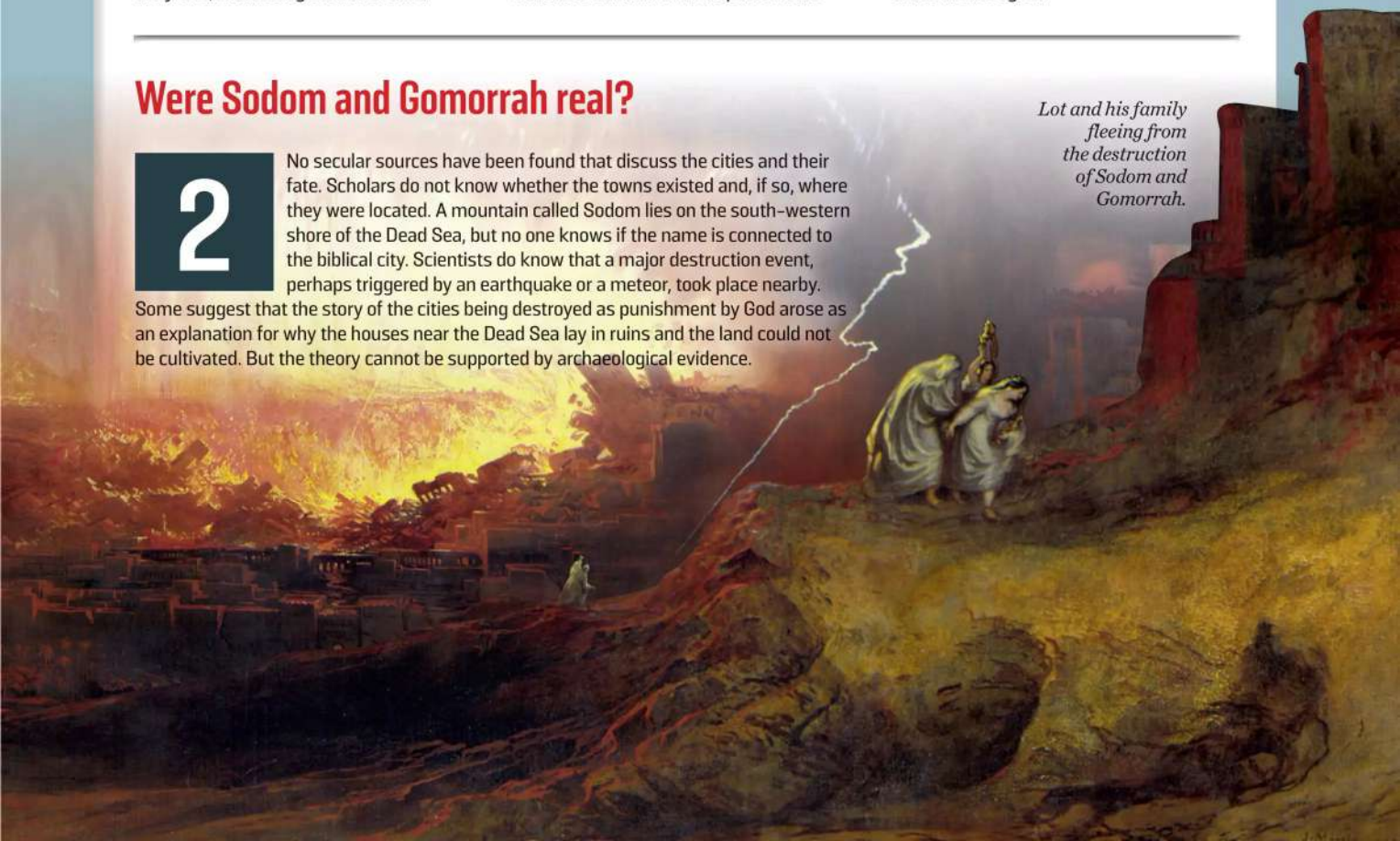
Some biblical scholars believe that the enclosures were used to pen in the Israelites' animals and keep them safe

from wild beasts during the 40 years when Moses and his people wandered the desert. Sceptics point out that the finds could just as easily have come from local Bedouins or other nomadic tribes in the region.

Were Sodom and Gomorrah real?

2 No secular sources have been found that discuss the cities and their fate. Scholars do not know whether the towns existed and, if so, where they were located. A mountain called Sodom lies on the south-western shore of the Dead Sea, but no one knows if the name is connected to the biblical city. Scientists do know that a major destruction event, perhaps triggered by an earthquake or a meteor, took place nearby. Some suggest that the story of the cities being destroyed as punishment by God arose as an explanation for why the houses near the Dead Sea lay in ruins and the land could not be cultivated. But the theory cannot be supported by archaeological evidence.

Lot and his family fleeing from the destruction of Sodom and Gomorrah.





Moses receives the Ten Commandments from God. According to the Bible, he led the Jews in their flight from Egypt back to Canaan.

THE FIRST JEWS

The Old Testament has ensured that the ancient history of the Jews is known around the world. But the more archaeologists dig into the story, the clearer it becomes that the truth about the origins of the Jewish nation has many more layers than historians realised.

The cobbled streets of Jerusalem echoed with the crackling of flames, clash of swords and screams of death. The stench of rotting corpses lay heavily over the hot summer city on this August day in the year AD 70. After an exhausting siege, over 20,000 Roman legionaries had broken through the Jews' last defences and were now fighting their way into the Holy Temple – the very heart of the Jewish nation.

The defenders had been convinced that the armies of heaven would come to their aid and liberate the land that God had promised his chosen people. But there was no divine intervention and all hope seemed extinguished. Destruction was inevitable.

The Roman commander Titus, who had grown up with a host of deities, like most of his compatriots, did not understand the Jews' relationship with their one god, but he ordered his soldiers to spare the lavishly decorated Temple anyway. The decision would only stand a short while, however. In the ensuing battles, the Jews attacked with such ferocity that the Roman troops forgot all about Titus's order.

A vengeful legionnaire took a stump of glowing wood and threw the torch through one of the

Temple windows. No one could stop the flames, which spread through the interior in seconds.

"As the flames went upward, the Jews made a great clamour, such as so mighty an affliction required," wrote the Jewish-Roman historian **Josephus**.

"As for the seditious, they were ... everywhere beaten; and as for a great part of the people, they were weak and without arms, and had their throats cut wherever they were caught. Now round about the altar lay dead bodies heaped upon another, as at the steps going up to it ran a great quantity of their blood," Josephus wrote of the fighting.

The defeat was absolute. The Jewish rebel leaders were dead or in chains, and the centre of their faith and way of life – the Holy Temple – lay in smoking ruins. Even Titus found it difficult to rejoice in his victory afterwards.

"There is no merit in defeating a people that have been abandoned by their god," he said, according to a later source. From that point onwards, the Jews could only look forward to suffering.

Abraham was founder of the Jews

The destruction of Jerusalem by the Romans in AD 70 marked the end of the Jews' often tragic history in the Promised Land. But who were ➤

JOSEPHUS

was an ancient Jewish historian. He is the oldest non-Christian source to mention John the Baptist, Christ and several of the apostles.

” The destruction of Jerusalem by the Romans in AD 70 marked the end of the often-tragic history of the Jews in the Promised Land.

UR
was an important city in the Bronze Age Sumerian Empire. It was located on the Tigris River in southern Iraq. The river has since receded, and today Ur is in the desert.

these Jewish people, whom God had chosen, as the Old Testament claimed, to inhabit a land “flowing with milk and honey”? According to tradition, the Jews’ founding father was Abraham, who lived in the Sumerian city of **Ur** in Mesopotamia, in what is now southern Iraq. The Bible relates how God appeared to the ageing clan chief and commanded him to go to a land that God would show him:

“I will make you into a great nation. I will bless you and make you famous.”

Abraham obeyed and set out with his family and servants. The truth of the story has been debated by scholars for centuries. The city of Ur was discovered and excavated in 1922, but archaeologists have never found any evidence that Abraham actually existed. If he was an historical figure, experts assume he lived around 2,000 BC. At that time, the Sumerians ruled Ur and a number of other city-states in Mesopotamia.

Abraham and his family were not Sumerians. Their names suggest that they belonged instead to the Amorites, a nomadic Semitic people who probably migrated from modern-day Syria. Later Babylonian sources describe the rootless immigrants with great contempt:

“The Amorite, he is dressed in sheep’s skins; he lives tents in wind and rain ... He eats raw meat.”

Abraham’s family, however, seemed to integrate into Ur’s highly civilised urban society, where his father, Terah, supposedly sold statues of the gods. In Abraham’s time, however, several disasters struck Ur. Around 2,000 BC, the Elamites from modern-day Iran attacked the city and led Ur’s king away in chains. At the same time, according to academics, agriculture in the area began to collapse because thousands of years of irrigation had polluted the fields. The disasters must have sent thousands fleeing, and it is in this light that Abraham’s

journey should probably be viewed. For although historians cannot find archaeological evidence of Abraham’s existence, it is very likely that an Abraham-like person lived at that time and he and his family fled Mesopotamia in the hope of finding a new land and a better life.

Jews should stand apart

According to the Old Testament, Abraham and his family first went to the city of Karan in modern-day Turkey. After some years in the city, the father, Terah, died, and Abraham set off again. After many years on the move, Abraham settled in modern-day Hebron in Canaan – the Promised Land.

The biblical record makes clear that it was important to Abraham that his lineage should be distinct from other tribes in Mesopotamia and Canaan. According to the Bible, God gave Abraham one of the most important rules of life for the Jews:

“From generation to generation, every male child must be circumcised on the eighth day after his birth.”

Circumcision became the physical proof of the covenant with God. Jews were also ordered to avoid shellfish and pork, and to refrain from working on the Sabbath – the day of rest, lasting from Friday night to Saturday night. The rules were later written down in the Jewish Torah, which corresponds to the five books of Moses in the Old Testament.

The story of Abraham shows that it was important for the first Jews not to mix with the tribes in Canaan. According to the sacred texts, both Abraham and his son Isaac sent servants back to Mesopotamia to find wives for their sons among the clansmen who had remained in the city of Haran. In this way, the clan’s blood was not mixed with that of the locals.

Abraham’s grandson Jacob had 12 sons with a number of wives and maidservants. These 12 sons supposedly became the ancestors of the 12 tribes of Israel, later called Jews after the son Judah, whose tribe gained influence in the regions around Jerusalem.

Slavery in Egypt

One of the best-known stories from the Old Testament is the account of Joseph, Abraham’s great-grandson. Joseph was sold into slavery by his envious brothers and made his way to Egypt, where he ended up as a vizier, the pharaoh’s second-in-command. This was because Joseph foresaw that Egypt would experience seven years of plenty followed by seven years of famine. The ➤



Israel mentioned in hieroglyphics
The earliest known mention of Israel and the Israelites comes from the Merneptah Stele. On this stone the Egyptian pharaoh Merneptah lists the peoples his armies have defeated. The stele is proof that a country or people called Israel existed in 1200 BC.



Ash layers reveal past climate

Because Moses is not mentioned in Egyptian sources, academics have difficulty verifying the story of his exodus and the ten plagues. By examining ash layers in ice cores, scientists can see whether a major volcanic eruption struck near Egypt at the time of Moses's exodus. A volcanic eruption would be a good explanation of the cause of the ten plagues.

During volcanic eruptions, lava, gases and microscopic ash particles are released into the atmosphere. The smallest particles are carried by the wind up to several thousand kilometres away before landing again on the Greenland ice sheet. As years pass, the particles are sealed under new layers of ice. Scientists can use the ash layers in the ice to date major volcanic eruptions and any climate change caused by the activity. Sometimes the ash layer is so thin that it can seem impossible to find it in the kilometre-long ice cores that scientists drill out of the Greenland ice sheet. Fortunately, there is help. The precipitation that falls after large volcanic eruptions is often slightly more acidic than normal, due to sulphur gases from the eruption. These gases can be detected with modern scientific instruments and indicate where in the ice core researchers should look for ash layers.

The ice cores that are drilled out can be several kilometres long.

Large volcanic eruptions turn ice brown

1 Many ash particles in ice cores are invisible to the naked eye. Often just 0.1 mm in size, they can only be spotted when a large number have gathered together to form a thin, brown stripe through the ice core. On the right is the ash layer from a 55,000-year-old eruption in Iceland.



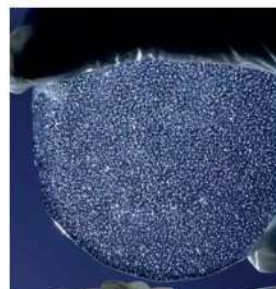
Ash leaves chemical fingerprint

2 Ash contains what's known as a chemical fingerprint, which can determine exactly which volcano the ash came from. Often, scientists can also tell which of the volcano's eruptions produced the ash from its chemical composition.



Mapping the consequences

3 By comparing the dating and composition of the ash, scientists can determine which volcano erupted when and with what force. With that knowledge, they can conclude what impact the eruption had on the climate.



Jewish rituals | Kippah



SKULLCAP During prayer and festivals, Jews wear a skullcap to show the wearer is humble before God.

prediction made it possible to gather enough grain to withstand the disaster. In return, Joseph was allowed to bring his entire family to Egypt, where the Jews lived well for generations. Over time, however, the Egyptian rulers drastically changed the living conditions of their Jewish guests.

“So the Egyptians worked the people of Israel without mercy. They made their lives bitter, forcing them to mix mortar and make bricks and do all the work in the fields,” the Bible reads.

The hard life ended, according to the Bible, when God told Moses, a Jew who had been adopted by Pharaoh’s daughter, to lead the Israelites out of Egypt. When Pharaoh refused to let the Jews leave, Egypt was hit by the famous ten plagues.

The story of the Jews’ long stay in Egypt and subsequent escape is hotly disputed. Egyptian sources make no mention of a foreigner from Canaan ever being appointed as **vizier**, nor is Moses mentioned. Another major stumbling block is the inability to date the exodus from Egypt. One of the prevailing theories is that the story of the Jews in Egypt dates from the New Kingdom, when powerful pharaohs united the divided land. The war-loving pharaohs boasted of their conquests in Canaan and elsewhere, from where prisoners of war were transported to Egypt and used as slaves.

A famous mural in the tomb of the Egyptian vizier Rekhmire, dating from around 1450 BC, shows foreign slaves toiling to mix clay and water, and shape it into bricks, while Egyptian officials stand guard. The tomb painting is accompanied by an explanatory text: “The captives that His

Majesty has brought back to work in the Temple of Amun.”

Several academics suggest that the scene is reminiscent of the Bible’s description of the Jews being forced to “mix mortar and make bricks”. So, the biblical accounts of slavery in Egypt are correct, and some of the slaves may well have been Jews. The story of Moses and the flight from Egypt has long posed major problems for scholars, because Egyptian texts make no mention of either Moses or a mass flight of slaves. Sceptics also point out that if Moses and many thousands of refugees stayed 40 years in the Sinai desert, as described in the Bible, they should have left traces. Others argue that if the Jews lived like Bedouins in the desert, they would have left nothing but fleeting footprints from their sandals.

The lack of evidence has led academics to suggest that the story of Moses and the flight from Egypt may be based on distant memories of the exodus of various smaller Semitic groups from Egypt over a longer period of time. When the Pentateuch (the first five books of the Bible) was written down around 400 BC, one or more authors tied the many stories together into a single, coherent and highly dramatic account of the birth of a nation.

Was the Promised Land conquered?

In the Old Testament, the ageing Moses never entered the land God had promised the Jews. After receiving the Ten Commandments and wandering for 40 years, the leader of the Jews died on Mount Nebo after seeing the Promised Land on the horizon. The Jews’ new leader was Joshua, who, according to the Bible, began a ruthless conquest

of the cities of Canaan. The sacred texts enumerate a long list of cities that Joshua captured. However, there is much evidence to suggest that the Bible greatly exaggerates. Archaeologists have so far found nearly 300 early Israelite villages dating from the thirteenth and twelfth centuries

BC. There is no evidence of war, and none of these early settlements was built on top of the ruins of captured Canaanite cities, but on bedrock.

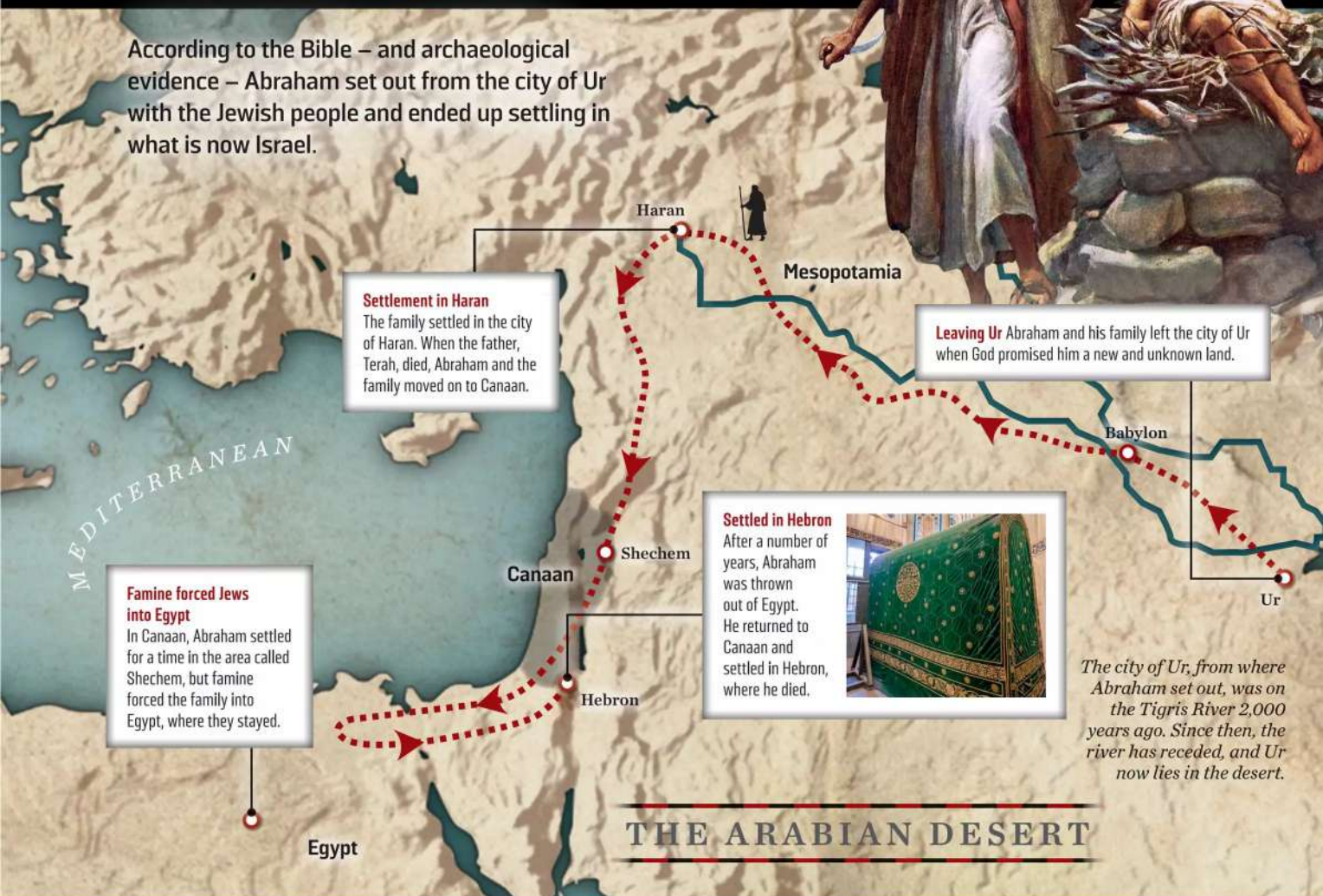
Similarly, investigations of the great Canaanite cities, which according to tradition were destroyed by the Israelites, have revealed that they were either never razed or were ruined by other peoples at other times. There are only a few cities that can’t be ruled out as having been destroyed by the Israelites, including the ancient city of Hazor, which Joshua allegedly burned to

“ Archaeologists have found nearly 300 Israelite villages from the thirteenth and twelfth centuries BC.

THE VIZIER
was the pharaohs’ highest and most important official.

Abraham walked 1,800 km to Canaan

According to the Bible – and archaeological evidence – Abraham set out from the city of Ur with the Jewish people and ended up settling in what is now Israel.



the ground. Scholars theorise that the Israelite conquest of Canaan was much more gradual than the Bible suggests. Some archaeologists even believe that the takeover happened from within, not from without. Their theory is that many of the first Israelites were outcast Canaanites who banded together and challenged both the Egyptian and Canaanite rulers in a social revolution. The hypothesis does not rule out that some of the revolutionaries originally came from outside, or that sporadic wars arose in the wake of the revolt.

Archaeologists also note that none of the Israelites' early settlements reveal any evidence of temples, palaces or monumental buildings. There

are therefore indications that the early Israelites built a society based to some extent on equality, without a powerful elite who displayed its power and entitlement through prestige buildings.

God may have had a wife

The Israelites' takeover of Canaan is dated by most experts to the thirteenth century BC. One of the greatest treasures of biblical archaeology dates from the same period. The Merneptah Stele, from around 1210 BC, pays tribute to Pharaoh Merneptah's campaign against Canaan. The stele lists the peoples and city-states defeated by the Egyptian armies. Towards the end of the long ➤

Jews' long history commemorated at festivals

The Jews use a lunar calendar of 354 days. To adjust for a discrepancy in the calculations of Jewish and Western calendars, a leap month is inserted into the year. The calendar is filled with festivals that remind Jews of their dramatic past.

The Jewish calendar is based on the position of the Moon, while the Western world generally uses the Gregorian calendar, which is based on the position of the Sun in relation to the Earth.

Each month begins with the New Moon. Because the Earth's movement around the Sun takes approximately

12.4 new moons, there is a discrepancy between the monthly calculations of the two calendars.

A thirteenth month (called Adar II) is intermittently inserted into the Jewish calendar to adjust the months according to the seasons, so that it corresponds to the Western world's

calendar. The names of the months date from Ezra's time and were Babylonian words adopted by the Jews in exile.

The Jewish calendar shifts in relation to the Gregorian calendar in a 19-year-cycle, therefore only an approximate comparison can be given.

Purim pays tribute to the young girl Esther who, under Persian rule, supposedly saved the Jews from extermination.

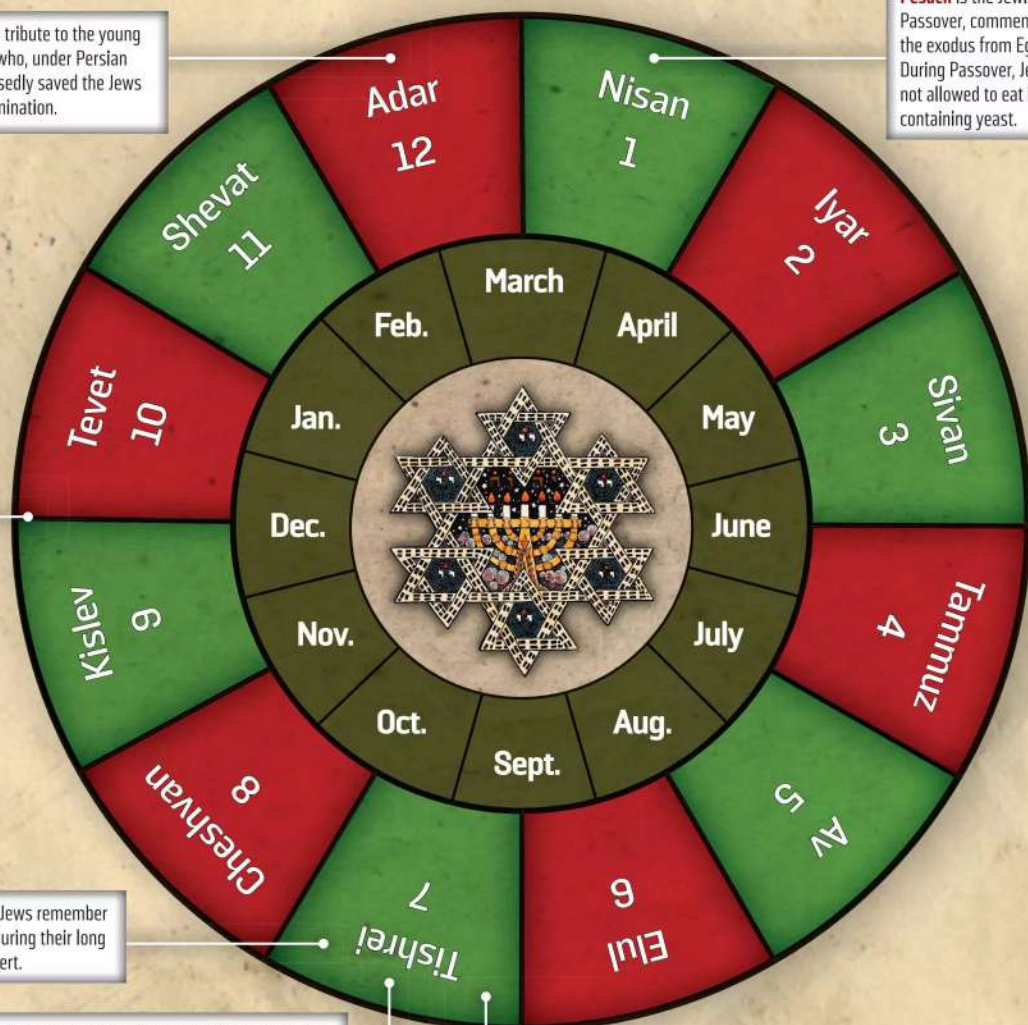
Pesach is the Jewish Passover, commemorating the exodus from Egypt. During Passover, Jews are not allowed to eat bread containing yeast.

Hanukkah celebrates the rededication of the Temple in Jerusalem after the Jewish rebellion against the Greek Macedonian rulers in 165 BC.

Sukkot is a festival when Jews remember how God protected them during their long trek through the Sinai Desert.

Yom Kippur commemorates the story of Moses receiving the Ten Commandments from God. At the heart of the religious holiday is the confession and forgiveness of sins.

Rosh Hashanah is the Jewish celebration of new year. According to tradition, Adam and Eve were created on this day.



list, the scribe has chiselled: "Israel is laid waste, and his seed is not."

The stone is invaluable to archaeologists because it is the first time that the Israelites are mentioned by sources other than the Bible. While other ethnic groups are referred to as nascent states, the Israelites are called a people. The Jews had not yet created a state, but were apparently considered a powerful enemy by the Egyptians. Despite the pharaoh's boasts, the people of Israel were far from defeated, however. On the contrary, excavations show that the Israelites were slowly but surely growing stronger and stronger. The Old Testament gives the impression that the Israelites found strength in the worship of their one god, Yahweh, but here, too, the archaeological evidence points in a surprising direction. In 1968, researchers found an interesting tomb inscription near the city of Hebron: "May you be blessed by Yahweh and his Asherah."

Asherah is the name of the Canaanite mother goddess, who was worshipped under various names throughout much of the Middle East. The tomb near Hebron dates from the eighth century BC, when the Israelites had supposedly long since converted to monotheism, but the inscription suggests that the early Israelites considered Asherah to be Yahweh's wife, and worshipped the gods as a couple. Since the discovery in 1968, archaeologists have found several similar inscriptions mentioning Yahweh and Asherah together. Amazingly, many Israelites were not yet monotheists. Some scholars also believe that thousands of small female statues found throughout Palestine depict Asherah. The statuettes can be dated as far back as the sixth

Jewish rituals

Shofar

RAM'S HORN

At the Jewish new year, revellers blow rams' horns, symbolising Abraham's first sacrifice of a ram.



century BC. One theory is that Asherah was written out of the Bible when Jewish scholars compiled their sacred writings into the Old Testament.

City gates associated with Solomon

Around 1000 BC, the 12 Jewish tribes chose David as their common king. Historians believe that the tribes formed their new confederation in order to stand stronger in the fight against the Philistines and other non-Jewish peoples, who continued to cling to fortified cities in Canaan. According to the Old Testament, the wars were extremely bloody. About a conquest in northern Canaan it is written:

"And the Israelites took all the plunder and livestock of the ravaged towns for themselves. But they killed all the people, leaving no survivors."

Academics have long doubted whether David ever existed, but in 1993 archaeologists found an astonishing inscription on a stone tablet from 840 BC. It reads "House of David" – a royal dynasty. So, Israel once had a king named ➤

Abraham grew up with many gods



MOON GOD NANNA

The city of Ur, where Abraham lived, was the centre of worship for the moon god Nanna, who was venerated from the city's temple. For a few hundred years, Nanna was the most important of all the Sumerian gods.



WIND GOD ENLIL

Enlil was the god of air, wind and storms. He was so powerful that, according to a Sumerian hymn, "no god can look upon him" and "no city would be built, no settlement would be founded" without him.



SUN GOD UTU

The Sumerians believed that Utu rode across the sky in his chariot and saw everything that happened on Earth. He was also the god of justice, rewarding the righteous and punishing those who broke the gods' rules.



GODDESS OF LOVE INANNA

Inanna was the Sumerian goddess of love and fertility. In the main temple in the city of Uruk, priests and priestesses invited people to homosexual orgies where they worshipped the goddess.

David. Whether the king is the biblical David it is impossible to say. However, archaeologists have also excavated monumental city gates in the cities of Hazor, Megiddo and Gezer, all dating from the tenth century BC. The biblical texts mention that David's son, King Solomon, fortified and built large city gates in these three towns. Although Solomon is not mentioned by other sources, the discovered city gates suggest that the account is based on true events. On the other hand, scholars also agree that the first Jewish kingdom was relatively small, with few inhabitants, contrary to the Bible's claims.

Abducted by neighbours

In the years after Solomon, the kings lost control of the kingdom, which was split into Judea in the south and Israel in the north. In 721 BC, the Assyrian war machine rolled into Israel.

The Assyrians rounded up the Jewish elite and deported them to their homeland between the Euphrates and Tigris rivers, where the Jews living to the north would be swallowed up by surrounding communities within a few generations.

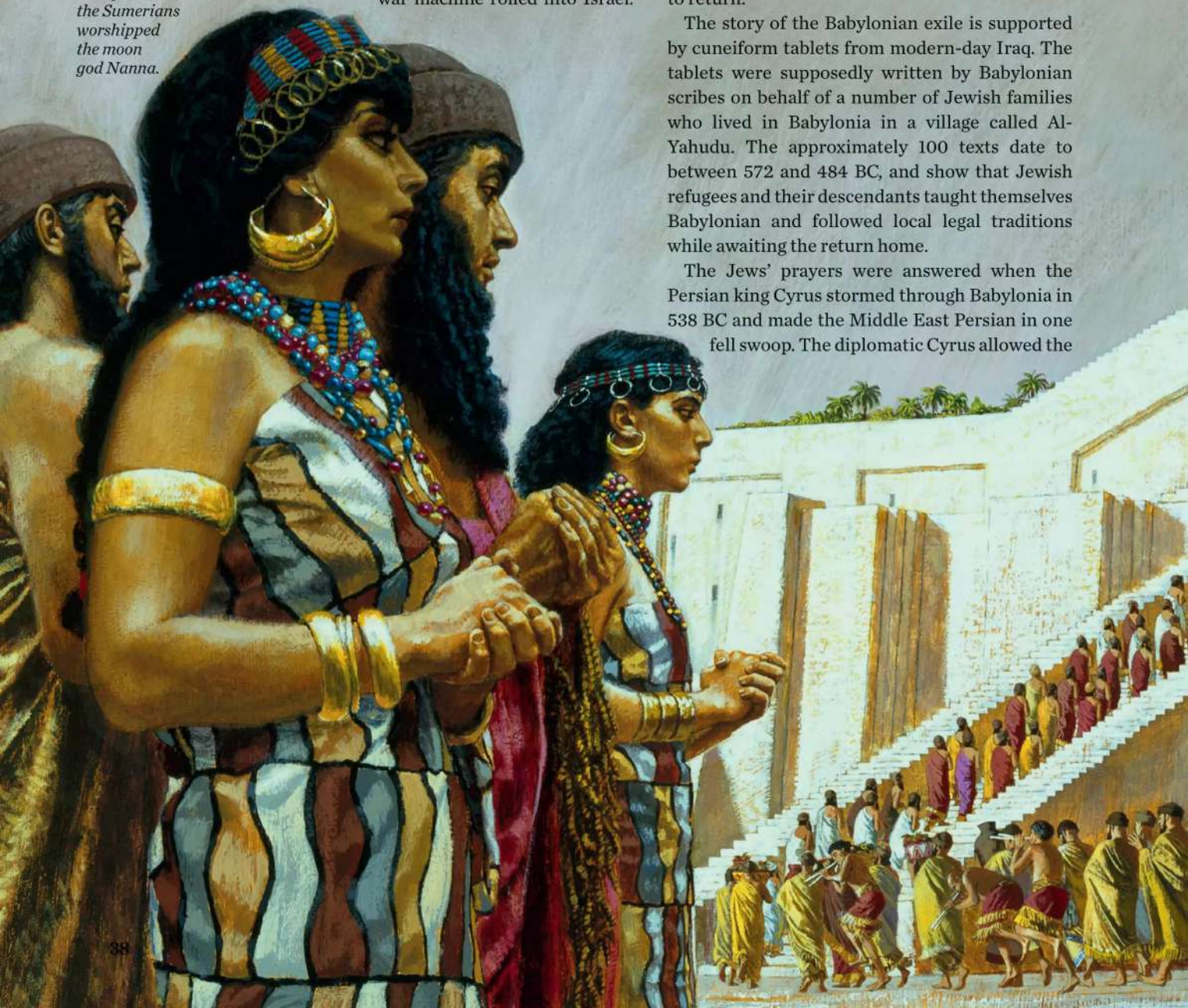
David's descendants were still holding court in Jerusalem when the Assyrians' successor as a major power, Babylonia, under the proud King Nebuchadnezzar II, pounced on Judea in 587 BC. Unlike the Assyrians, Nebuchadnezzar was not content to abduct the ruling class. He set his soldiers to destroy both Jerusalem and the Jewish shrine on the Temple Mount.

But this time, the Jews did not disappear. In Babylonia, the displaced Jews formed communities with other Jewish people who had emigrated of their own free will. Here they could preserve their culture and religion while waiting to return.

The story of the Babylonian exile is supported by cuneiform tablets from modern-day Iraq. The tablets were supposedly written by Babylonian scribes on behalf of a number of Jewish families who lived in Babylonia in a village called Al-Yahudu. The approximately 100 texts date to between 572 and 484 BC, and show that Jewish refugees and their descendants taught themselves Babylonian and followed local legal traditions while awaiting the return home.

The Jews' prayers were answered when the Persian king Cyrus stormed through Babylonia in 538 BC and made the Middle East Persian in one fell swoop. The diplomatic Cyrus allowed the

In the temple of Abraham's birthplace, Ur, the Sumerians worshipped the moon god Nanna.



Jews to return to Judea, where they rebuilt the ruined Temple in Jerusalem.

Greeks banned Judaism

After Alexander the Great conquered the western part of the Persian Empire in 332 BC, the Jews experienced their greatest crisis yet. Alexander and his men from Greece and Macedonia were primarily interested in making money and spreading their Hellenic culture.

The Macedonians did not have the Persians' respect for local cultures and considered the Jews mostly as exotic entertainment. Soon they were forcibly Hellenising Jewish areas, including Samaria, where Alexander founded a Macedonian military colony. The contrast with the Jewish way of life was so great that it soon became known that Jews and Greeks were archenemies.

On 10 June 323 BC, Alexander died suddenly and his empire was divided between various heirs,

who constantly fought each other. The Jewish territories became part of the Seleucid Empire, which was at war with the Ptolemaic Empire in Egypt – where, incidentally, a thriving Jewish community had sprung up in the cosmopolitan city of Alexandria. Political chaos reigned, and the Seleucid Empire quickly sank into a quagmire of intrigue and corruption.

In the 170s BC, there was turmoil in Jerusalem when the high priest Menelaus, who had bribed his way to the most powerful post at the Temple, was caught stealing from the Temple treasury. Soon he had so many people after him that he decided to wipe out the very cause of the trouble – Judaism. In 168 BC, he managed to convince the **Seleucid** king that the only way to deal with the unruly Jews was to ban the religion outright. The king accordingly sent commissions around

THE SELEUCIDS

were the Macedonian dynasty that ruled parts of the Persian Empire's Asian territories from around 300 BC to 64 BC.



Jewish rituals | Tefillin

LEATHER STRAPS

During morning prayer, Jews wear two leather straps. Each strap secures a box with texts from the Pentateuch.



the country, forcing people to eat pork and make sacrifices to Greek gods.

In response, an underground Jewish movement emerged around its leader, Judas Maccabee. The Maccabees, as they became known, waged an armed struggle against the Greek rulers and defeated King Antiochus IV, who promised to restore Judaism, but with Menelaus as high priest.

The Maccabees could never accept him, and the fighting continued. By 163 BC, the Jews had suffered so many defeats that they had only the Temple Mount left as a foothold. However, a power struggle for the Seleucid throne prompted the Maccabees to go underground again, and Menelaus was executed. Eventually, the Seleucids lost power, not least because of the rising Roman Empire. In 143 BC, the high priest Simon was able to shut Judea's last Seleucid military outpost.

To secure a good relationship with the new world power, he sent a golden shield as a gift to Rome. However, the Seleucids did not give up without a fight. They sent the army back into the country and occupied Jerusalem, which surrendered in 133 BC. Although the Jews repeatedly appealed to Rome for support, it was not until 113 BC that the Romans saw any interest in supporting the Jews militarily and driving out the foreign troops.

Romans enraged the Jews

A riot broke out in Jerusalem in 4 BC when Herod, vassal king and high priest under the Romans, desecrated the Temple by placing a Roman golden eagle over the entrance. After Pompey conquered Jerusalem in a campaign in 64 BC, and the Romans began to interfere in the installation of priests, the rift between the people and the rulers grew. The Jews tore down the eagle, so Emperor Augustus

sent in the army, and 3,000 Jews were slain. Judea was turned into a military colony, and Augustus collected taxes with such zeal that people had to flee to the mountains to avoid ruin.

The next few years were marked by power-hungry governors, underground movements and hysteria. Prophets came out in droves, including a man called Jesus who was crucified for his rebellious speeches. The prophet Theudas claimed he could part the waters of a river like Moses; when he failed, he was beheaded.

Rebellion broke out in earnest when Gessius Florus, Roman governor AD 62–64, received money to release criminals and to help Jews in Caesarea, where the Hellenists blocked the road to the synagogue with a series of stalls. When people in Jerusalem learned that Gessius had pocketed the money without speaking out on behalf of the Caesarean Jews, they took to the streets.

Florus deployed the army and set about crucifying rebels, while upper-class Jews tried to whip people into submission. Florus abandoned the city to the Jewish elite and fled to Caesarea. Meanwhile, King Agrippa of Alexandria arrived with an army. When Jewish rebels began to murder the upper class for collaborating with the Romans, the elite pleaded with Agrippa for help.

His 3,000 soldiers entered the city and helped capture the upper hill. Then the rebels poured in and drove Agrippa's men out again. In the winter of 66–67, the rebels opted for a military government and fortified all the country's important sites. In the spring of 67, Emperor Nero sent General Titus Vespasian to Jerusalem to put down the rebellion once and for all. When Vespasian learned that various groups inside the city were at war with each other, he ravaged the rest of Judea

instead. In 68, Nero died, and in 69 Vespasian went to Rome to secure power. His son Titus was given the task of dealing the death blow to Jerusalem. After trying unsuccessfully to storm the Temple Mount, Titus had a stone wall built around the city in 70. After three days, people began

to starve. With powerful battering rams, Titus and his army penetrated the weakened city and the Temple, and the sanctuary was burned down. Historians estimate that hundreds of thousands of Jews lost their lives. Crushed by the Romans and with no religious centre, the Jews then roamed the Middle East and Europe as a people without a state, but with a faith that kept them together and separate from the unbelievers around them. ■

“ The prophet Theudas claimed he could part the waters of a river like Moses; when he failed, he was beheaded. ”



WE KNOW WITH CERTAINTY

Jews began their journey 4,000 years ago

- Farming in the fertile region of the Tigris and Euphrates rivers collapsed 4,000 years ago, sending thousands fleeing, probably including Abraham, who is claimed to be the founding father of the Jews.
- The Jews lived in exile in Babylonia around 2,600 years ago, awaiting the opportunity to return to Israel.
- The Persian king Cyrus allowed the Jews to return in 538 BC.

70

is generally considered the year that marked the end of the Jews' time in the Promised Land. During AD 70, the Romans brutally crushed a final Jewish rebellion.



WE NEED ANSWERS

Did Solomon's temple exist?

1

No archaeologist has found any trace of King Solomon's Temple, which appears in the Bible. According to the texts, the Temple in Jerusalem was the centre of Jewish religion until 587 BC, when it was destroyed by the Babylonian king Nebuchadnezzar II. Because of the tense political situation in Jerusalem, archaeologists have had difficulty digging for evidence of the Temple.

Where are the lost tribes of Israel?

2

According to the Bible, Israel originally had 12 Jewish tribes, descended from the 12 sons of Jacob. The 12 tribes divided the land of Canaan between them, but ten disappeared from history and only the people of Judah and Levi survived. The Bible says they inhabited southern Canaan and later created Israel in the land of Canaan.



The Bible claims that the tribes of Israel chose the land of Canaan around 1000 BC. David was king of the Jews. He settled in Jerusalem, where his son Solomon built the city's first Temple.

The Bible itself, along with finds and language analysis, is archaeologists' best source when they – along with geologists, genealogists and other researchers – try to map the biblical world.



THE BIBLE'S UNCHARTED WORLD

What did the Middle East look like 3,000 years ago when the Israelites arrived in the Promised Land? How were wars fought? Who were the Philistines? Did Canaan really flow with milk and honey? **Today, scholars try to map the world of the Bible through archaeological finds and ancient beehives.**

Moses led the Israelites out of Egypt, where the pharaoh had been holding them captive, the Bible tells us. As the multitude approached Canaan, the land God had promised them, Moses sent 12 scouts – one from each of the Israelite tribes – ahead to find out what conditions were like. After 40 days, they returned. They brought with them a vine so big that two men had to carry it between them on a pole. Canaan was all the Israelites could wish for, Moses's envoys said.

"We entered the land you sent us to explore, and it is indeed a bountiful country – a land flowing with milk and honey. Here is the kind of fruit it produces," they reported, according to Numbers, the fourth book of the Bible.

"But," they warned, "the people living there are powerful, and their towns are large and fortified."

The Bible's words about the land of Canaan set the scene for the Jews' earliest days in God's promised land. The Bible tells us how the Israelites founded ancient Israel and later defeated their enemies. Over the years, scholars have tried to uncover the historical truth behind

the stories by mapping what the land of Canaan really looked like and which people lived in the area. Archaeological finds collected over decades – together with modern analytical techniques – now give researchers a close-up view of the region in Moses's time, 3,000 years ago.

Middle East was agricultural heaven

The Bible's description of **Canaan** – an area that includes modern-day Israel, Palestine, Jordan and the southern parts of Syria and Lebanon – as a fertile and rich land is largely accurate. In particular, the area north of present-day Israel – then part of Canaan – was known for its good soil and is often referred to today as part of the Fertile Crescent, a name coined by US archaeologist James Henry Breasted in the 1900s. Although much of Canaan consists of rocky desert and scrubland, the region has, as its name suggests, some of the best farmland on the planet. It's one of

the reasons why civilisation flourished there.

The hills of Canaan 3,000 years ago were overgrown and covered with pine, oak and turpentine trees. The terrain was too rocky for large-scale animal husbandry, so meat from sheep and goats made up very little of the inhabitants' diet. Instead, the Israelites cultivated the land on the sloping hills, planting ➤

“We entered the land you sent us to explore, and it is ... a land flowing with milk and honey.”

Book of Numbers

CANAAN

is known from Egyptian sources and in ancient times was the name for the area west of the Jordan River towards the Mediterranean.

cereals and other crops, such as lentils, chickpeas, beans and barley.

Before the Israelites settled in Canaan, the area had been under Egyptian rule for centuries. In 1458 BC, Pharaoh Tuthmose had defeated an army of Canaanite forces at the Battle of Megiddo in the north of what is now Israel, and the pharaohs had ruled the area ever since. But 300 years later, when the Israelites arrived, the Egyptian empire was weakened, and the pharaoh was close to abandoning his vassal state to the east.

Gate lay in ruins

Jaffa, on the Mediterranean, was probably one of the Egyptians' last strongholds. Archaeologists have found evidence of major military clashes in the city, which is now part of modern-day Tel Aviv. The city's huge gate was destroyed in a brutal battle, and arrowheads and ash found in the soil reveal that fierce fighting preceded the Egyptians' expulsion from the city around 1125 BC.

Other evidence of violent clashes in and around important Egyptian holdings in Canaan – such as a large grain store 20 kilometres from Jaffa – leads scholars to speculate that a concerted Canaanite rebellion drove the Egyptians out. The area the pharaoh abandoned, though fertile,

was not as rich and developed as his empire along the Nile. Nevertheless, Canaan's mild climate and convenient location were attractive to all the peoples of the region. Trade opportunities, in particular, were unique, with some

of the great overland trade routes of the time converging there. Caravan routes – such as the Via Maris, which linked Egypt with Mesopotamia – connected markets in the east and west.

Ports on the Mediterranean were perfect for moving goods between major trading nations, and the area had attracted both small and large regional powers throughout the ages, seeking to possess and control the strategically important harbours. According to the Bible, the Israelites were one such people and they quickly settled the region and became the dominant power.



The land of Canaan is first mentioned in correspondence between Pharaoh and his subjects in the Amarna Letters of the fourteenth century BC.

Israelites took land without violence

While the Egyptians' battles in Canaan are documented through archaeological discoveries, we only know of the Israelites' conquest of the area from the Bible. Archaeologists have found no evidence of destruction by warfare, and some therefore believe that the takeover of Canaan was not by force, but by the Israelites spreading their distinctive way of life while taking over part of the

The first ... settlers | 23,000 BC

Middle Eastern agriculture was an experiment

According to archaeological evidence excavated between 1989 and 2000 at the Ohalo II site by Lake of Gennesaret in Israel, people first settled and tried to farm the land in the Middle East 25,000 years ago. The Ohalo II site shows that a population of hunter-gatherers experimented with growing cereals, such as wheat and wild barley, at their settlement. The way the grain had been dispersed suggested that the population had tried to grow wild plants as crops. The seeds – which were preserved under a layer of water and silt – lay in fine-tilled soil. The oxygen-poor environment preserved the organic material, which otherwise would have decayed. Archaeologists also found traces of grass huts and tools on the site.



Researchers have reconstructed the huts that the first humans in the Middle East lived in at the Lake of Gennesaret.

local culture. Either way, the conquest of Canaan was a slow process that took over a hundred years. Only with the conquest of Jerusalem in the tenth century BC can Canaan, according to historians, rightly be called the land of the Israelites.

Having created a kingdom, the Israelites began to focus on strengthening it through trade. And they succeeded. Evidence shows that goods flowed to Israel from the farthest reaches of the known world. For example, archaeologists south of Haifa in present-day Israel have found bottles containing remnants of cinnamon from Asia that date from the eleventh and ninth centuries BC.

Trade also included everyday goods. Oxygen isotope analysis of the teeth of golden bream shows that for hundreds of years the Israelites imported fish from a lagoon on the Sinai Peninsula in Egypt – a form of trade that testifies to wealth and profit. In return, Jewish merchants exported wheat, wine and olive oil, their main commodities.

Jerusalem's height protected it

Trade was initially driven by the Israelite elite, and imports included not only luxury goods but also materials for building the growing cities. Before the Israelites came to power, Canaan had been a relatively primitive society compared to that of the Egyptians, but it was the construction of Solomon's Temple that boosted the development of Jerusalem and the whole kingdom. Jerusalem quickly became the region's most important city, and with good reason. The area on which the city sits offers access to water and shelter, and archaeological discoveries show that it has been inhabited since people first set up camp at the source of the River Gihon, central to the present city, around 4000 BC. The Egyptians also considered Jerusalem important, and while pharaohs ruled the area, the city housed a small Egyptian garrison run by the local chieftain.

In addition to a stable water supply from the Gihon spring, the city was also strategically located in the Judean Mountains, 800 metres above sea level. From the Mount of Olives, just outside the city, on a clear day the inhabitants could see the Judean desert, the Dead Sea and the mountains of modern-day Jordan. The hills enabled the citizens to keep protect themselves from advancing enemies. A strong and powerful fortress on this important site helped to secure the Israelite settlements in the mountains and on the narrow strip of land towards the coast.

So, there were good strategic reasons for choosing Jerusalem as the capital, but historians say that the city was actually chosen on quite



different grounds. In its earliest years, Israel was ruled by 12 tribes, each controlling its own part of Canaan. And because the area around Jerusalem was outside the clan system of the Israelites, it provided a neutral meeting point to which none of the tribes could lay particular claim.

Towns had only 400 inhabitants

From Jerusalem, the new Jewish rulers could look out over their kingdom, where a number of other settlements were scattered in a recognisable pattern. Most towns – like Jerusalem – were on hilltops, a location that enabled the inhabitants could keep an eye on their livestock and watch for potential threats and hostile warbands. These hilltop settlements were quite small – smaller than long thought. For example, two of the Israelites' most important towns, Shiloh and Gibeon, had only about 400 inhabitants – settlements of that size counted as large, and while the towns were naturally protected on hilltops, few had proper city walls. Instead, they were surrounded by a fence that kept livestock in at night, protecting them from thieves and wild animals.

In all likelihood, the inhabitants were under the protection of a local prince or overlord who provided security. We know from the Bible that some of the rulers' cities had already served as political and administrative centres for ➤



Israeli authorities and international research teams are working intensively across much of the world described in the Bible to find archaeological evidence. The hope is that the discoveries can help map Israel as it was 3,000 years ago.

Canaanite warlords for centuries before Moses and his people arrived. One example is the city of Shechem – now Tell Balata, a suburb of the West Bank city of Nablus. Shechem is mentioned in the Amarna Letters, a series of clay tablets containing correspondence between the Egyptian pharaoh Akhenaten (c. 1350 BC-1330 BC) and his diplomats in Canaan and elsewhere. In the Bronze Age, Shechem was known as a lively trading

centre, where grapes, olives, wheat, livestock and pottery, in particular, changed hands. During excavations in the 1980s and 1990s, archaeologists found the remains of houses, city walls, household utensils and animal bones – discoveries that have helped researchers understand the structure of families, everyday life and society 3,000 years ago, and describe the first cities fairly accurately. The excavations show that large families lived in

The Middle East from the Stone Age to the Bronze Age

12000 BC

Small village communities emerge in Mallaha in the Jordan Valley. Archaeological evidence shows that the inhabitants lived by fishing from the nearby lake and working as hunter-gatherers.

9300

People begin to systematically cultivate the land of the Middle East. Archaeologists have found traces of the distinctive wheat emmer in the Jordan Valley.

3600

The world's first known organised societies – the Sumerian city-states – emerge in the south of modern-day Iraq. The lush Tigris Valley provides the Sumerians with abundant grain and other important crops.

clusters of houses around a central courtyard. Individual houses were built of bricks made from dried mud and had stone foundations. In the courtyards, archaeologists have found traces of water cisterns, large ovens made of clay or mud bricks, and fires for cooking.

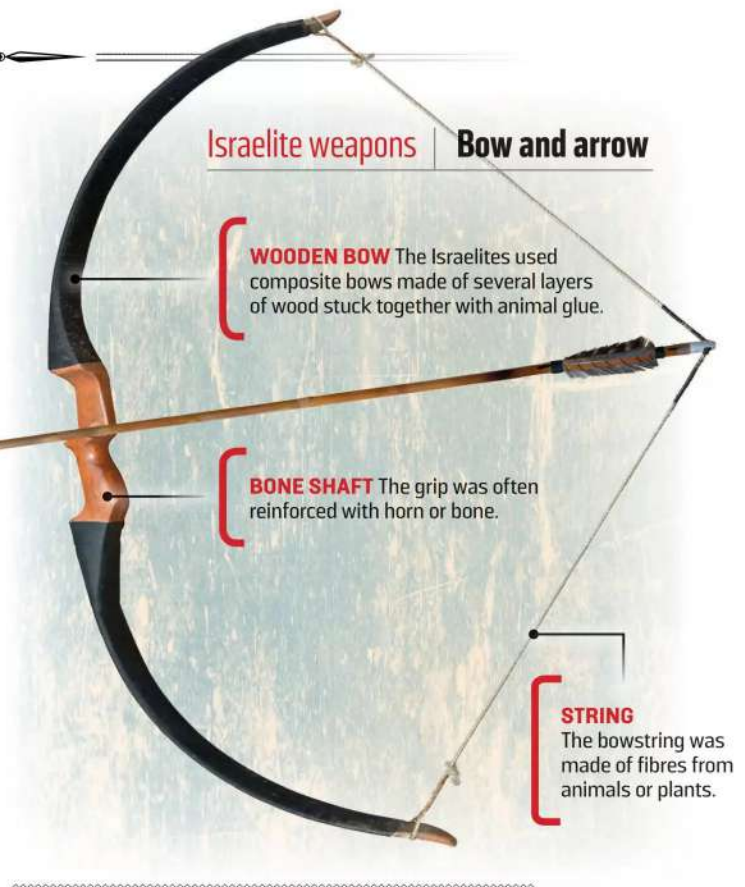
From the courtyard, the entrance led to a large common room with access to three or four smaller rooms. Archaeologists have uncovered cobbles here, so assume that the rooms were used as stables for domestic animals – mainly goats and sheep – or for storing food in large ceramic jars. Some of the houses had an extra floor made of wood, and historians assume that the inhabitants slept either there or simply outside on the houses' flat roofs.

Philistines ruled over five city-states

The fortified cities were important in the fight against the Israelites' arch-enemy, the Philistines, who were ultimately the only remaining undefeated people in the region. Biblical writers recount how the Israelites subdued all of Canaan except the cities of the Philistines.

"None of the descendants of Anak were left in all the land of Israel, though some still remained in Gaza, Gath, and Ashdod," the Book of Joshua tells us. Those who "remained" were the Philistines, who lived in five city-states on the eastern Mediterranean coast. The enemy was rich and unlike the rest of area's inhabitants, they had iron weapons. The Jews needed a healthy economy built on trade and strong warlords to fight them.

According to the Bible, the Philistines and Israelites fought several battles, including the famous duel between the giant Philistine warrior Goliath and the young shepherd boy David during the Battle of the Valley of Elah. The valley is strategically located between the coastal plain, which housed the Philistine city-states, and the Judean Mountains, where Jerusalem was



located. The Bible says that the Philistines entered the valley with a huge force equipped with chariots and that the Israelites were outnumbered. Neither army dared to attack the other, and after 40 days, David arrived to give his older brother, a soldier, a package of bread and cheese. David persuaded the Israelites to let him go into battle against Goliath, a very tall, broad Philistine who'd been provoking the Israelites for weeks, urging them to fight. With a simple sling and stones, David sent Goliath tumbling to the ground. To ensure he was dead, David thrust a sword into Goliath's chest. When the Philistines saw their hero was slain, they fled.

The story of David and Goliath is unlikely to be true, but the battle between the Philistines ➤

1500

The kingdoms of Canaan are effectively vassal states of Egypt. Archaeological evidence suggests that the invasion of the Sea Peoples and subsequent migrations threw the Middle East into chaos.

1200

Israel is first mentioned in an inscription on a stone erected by the Egyptian pharaoh Merneptah. Discoveries show that an independent Israeli kingdom definitely existed around 900 BC.

586 BC

The Babylonians conquer Israel and send the Jews into exile. The kingdom is later restored as a Persian province, but its population is drastically reduced. Only around 35,000 Jews live in Israel.

and Israelites in the Valley of Elah could have taken place. However, archaeologists have not found any evidence to confirm the Bible's dramatic narrative, despite having made a diligent search.

Chariots were trump card

One thing they can conclude, however, is that a battle between the Philistines and the Israelites would have been a one-sided affair, requiring a minor miracle to secure a Jewish victory.

The Bible and other sources make it clear that the Philistines were militarily strong and almost certainly superior to the Israelites. From depictions on the stele of the Egyptian pharaoh Ramesses III, we know that they fought in groups of four. Three of them were each armed with a long, straight sword and a pair of spears. The fourth carried only a sword. All bore round shields and probably wore protective breastplates.

The Philistines also had chariots, which are both shown on the stele and mentioned in the Bible's Book of Judges – the account of the Israelites' first year in Canaan. These technologically advanced chariots had six-spoked wheels, were pulled by two horses, and were a fearsome weapon in the Bronze Age, with historians referring to them as

the tanks of their day. In general, the Philistines' weapons were superior to those of the Israelites, partly because, according to the Bible, they had a local monopoly on the forging of iron and the technology to make weapons.

The Israelites, on the other hand, were weak. They did have spears, swords, bows and slings, but in limited quantities: "Not a shield or spear could be seen among forty thousand warriors in Israel!" complains the author of the Book of Judges.

And although archaeologists have found a number of daggers made of bronze and iron at Tel El-Farah near Nablus in the West Bank, it's clear that the early Israelites lacked decent weapons. That's why, according to the Bible, their warfare could be somewhat unconventional.

"Shamgar, son of Anath ... killed 600 Philistines with an ox goad," the Book of Judges recounts.

The story is obviously exaggerated, but it reflects the fact that in the early years, the Israelites seized everyday tools when they had to go to war against much stronger enemies. The skirmishes of the Israelites and Philistines gradually developed into battles between mass armies of hundreds of soldiers armed with swords and spears of iron. Heavy infantry was supported by soldiers

Continued on page 53

Israel's enemies in the Holy Land



THE NEO-HITTITES

were an ancient people who emerged after the collapse of the mighty Hittite Empire in Anatolia in the late Bronze Age. According to the Bible, many Neo-Hittites lived in early Iron Age Canaan.



THE AMORITES

were originally a nomadic people, but later founded powerful dynasties in the mighty civilisations of Babylon and Assyria. The Amorites were originally one of the peoples who competed with the Israelites for power in Canaan.



THE ARAMAEANS

lived in Syria in the twelfth century BC. According to the Bible, from the eleventh to the tenth century BC, the Jewish kings Saul, David and Solomon had to fight against the Aramean kingdoms on the other side of Israel's northern border.



THE CANAANITES

lived in what is now Israel, Lebanon, Palestine and parts of Jordan, Syria and north-eastern Egypt. According to the Bible, the Israelites conquered the land of the Canaanites, but it's more likely that they took over parts of their culture, including the writing system.



BABYLONIA

in present-day Iraq was, from the eighteenth to the sixth century BC, one of the most important empires in the Middle East. The Babylonians, under the warrior king Nebuchadnezzar in 605 BC, conquered Jerusalem and captured many leading Israelites.



ASSYRIA

was located on the Tigris in present-day Iraq. The kingdom was named after the city of Assur, about 100 km south of Mosul. The city first appears in sources around 2000 BC. In the eighth century BC, the kingdom subjugated large parts of the region including Israel, Judea, Syria and Gaza.



THE PHILISTINES

lived in city-states along the Mediterranean coast in present-day Israel and Palestine, and were Israel's worst enemy in the Iron Age. They had a monopoly on iron, advanced technology and a strong economy. They were militarily powerful.



According to the Bible, the Philistines' time ended with David's victory over the giant Goliath at the Battle of the Valley of Elah. The area is one of the most fertile in the Middle East and has long been important for agriculture.





INTERVIEW

Professor Aren Maeir,
Gath Archaeological Project

Aren Maeir is an excavation director, archaeologist and professor at Israel's Bar-Ilan University. Maeir has written several books on Canaan's Bronze Age and Iron Age.

Israeli professor found Philistines' city

In 1996, Israeli archaeologists began a major excavation project. The goal was to find Gath, one of the Philistines' five cities described in the Bible. The task was successful, and the excavations are a key source for mapping the Philistines' time in Canaan and assessing the Bible's descriptions of their kingdom.

? Who were the Philistines and where did they come from?

This is part of what we are trying to find out through our finds. It is likely that the Philistines were a transcultural group, uniting people from the Mediterranean region and local Canaanites.

? What have been the most surprising or significant finds during the excavation?

The most surprising and significant things we have found are the fact that Gath was such a large and important city in the Iron Age, and the traces we have found of King Hazael's siege and later total destruction of the city. The dig shows that the part of the city now under excavation extended over 40 hectares under the Philistines. The city was thus one of the largest in the region. Gath was an important site for the Philistines, perhaps their most important city in the tenth and eleventh centuries BC. Our findings show that the city was finally destroyed by the Aramean king Hazael around 830 BC, an event mentioned

in the Second Book of Kings, chapter 12, verses 17 and 18. This is the kind of information we are trying to verify with our findings. In this way, the Bible becomes more than just a Christian text, but also an important historical source.

? When did the excavation team realise that you had found Gath, the most important of the Philistines' cities?

The site where we started the excavations had previously been identified with a fair degree of certainty as Gath. But it wasn't until we made the discoveries that we were able to confirm the city's identity.

Among other things, we excavated a large monumental city gate, which shows the power and size of the city around the tenth century BC. In addition, the researchers found pottery shards with inscriptions showing that the city was inhabited by Philistines around 950 BC, the time when Gath was most powerful. The size of the town,

together with the other finds, helps to confirm that Tell es-Safi is indeed Gath. Archaeologists have found, among other things, a workshop that melted metal in the same way researchers know the

Philistines and contemporary workshops in Cyprus did it – a technique otherwise unknown in the Middle East at the time.

? The media reports that archaeologists have found inscriptions of the name Goliath. What do you deduce from that?

We haven't, it's important to stress that! But we have found an inscription with two names similar to the name Goliath. This shows that some of the Philistines actually had names that were of non-Semitic origin, such as the name Goliath. Again, this supports the theory that the Philistines came to Canaan from the Mediterranean.

In the early 1800s, the American biblical scholar Edward Robinson – whom some historians call the father of biblical archaeology – identified Tell es-Safi as Gath from the Bible.

? Israelites and Philistines are arch-enemies in biblical



Aren Maeir with several of the sacrificial jars excavated from Philistine temples. The jars bear both Philistine and Jewish names.

accounts. What do the findings tell us about their relationship?

On the one hand, the Philistines and the Israelites were enemies, but on the other hand, the findings show that they lived around each other. For example, we found a jar dedicated to the Philistine temple with a Jewish name on it. This and other similar finds show that Philistines and Jews lived peacefully side by side for long periods. Philistine culture

included people from Greece, Anatolia, Cyprus and areas even further afield, who settled among local Canaanites.

Apart from a brief study by the British archaeologists FJ Bliss and RAS Macalister in 1899, Aren Maeir's excavation represents the first scientific exploration of the city of Tell es-Safi.

? What happened to the Philistines?

The Babylonians conquered the Philistines in 604 BC. After the conquest, the invaders destroyed the Philistines' cities, and those who survived were exiled to Mesopotamia. Within a century or so, they were assimilated and disappeared as a distinct culture.

? Have you found weapons belonging to the Philistines or traces of weaponry?

We have found very few weapons that belonged to Philistines. But we have found two areas in Gath that produced metal; though we do not know whether weapons were produced at these sites.

? What do you think about using the Bible as a historical source?

Some parts of the Bible can be used as a historical source. Other parts of the scripture are far from historical.

The Middle East was a patchwork of kingdoms

In the Middle East, the first urban communities as we know them emerged. Here, for the first time, people began to farm and form city-states. The result was a patchwork of empires and endless wars.


Hittite Empire


Neo-Hittite states emerged after the collapse of the mighty **Hittite Empire** at the end of the Bronze Age. The small states continued the Hittite culture until the eighth century BC, when most of the Neo-Hittite small states were taken over by Assyria.



Phoenicia was a series of city-states on the eastern Mediterranean coast. Unlike many of the region's great cities, Phoenician towns such as Byblos, Sidon and Tyre survived the turbulent period that followed the Bronze Age. The Phoenicians thus continued early culture, such as language, writing and the world of the gods.




The **Aramaeans** never had a unified empire, but at the end of the Bronze Age they had a number of independent kingdoms throughout the Middle East and Asia. After the Bronze Age, their holdings dwindled and the Aramaeans were absorbed into the Neo-Assyrian Empire in the eighth century BC.


Phoenician city-states

Beirut

Damascus


Aramaic tribes

According to the Bible, the 12 tribes of **Israel** settled in Canaan around 1200 BC.


Philistine city-states

Jaffa

Jerusalem

Gaza

The Philistines are depicted on Egyptian buildings.



The **Philistines** ruled over the cities of Ashkelon, Ashdod, Gaza, Ekron and Gath in western Canaan.

EGYPT


Memphis

Sinai



Assyria

Assyria was a fertile kingdom on the Tigris in present-day Iraq. The kingdom benefited from plentiful rainfall and rivers flowing from the mountains, and from an abundance of minerals and metals. The country was able to feed a large population and grew militarily strong in the eighth century BC.

Tigris

Euphrates

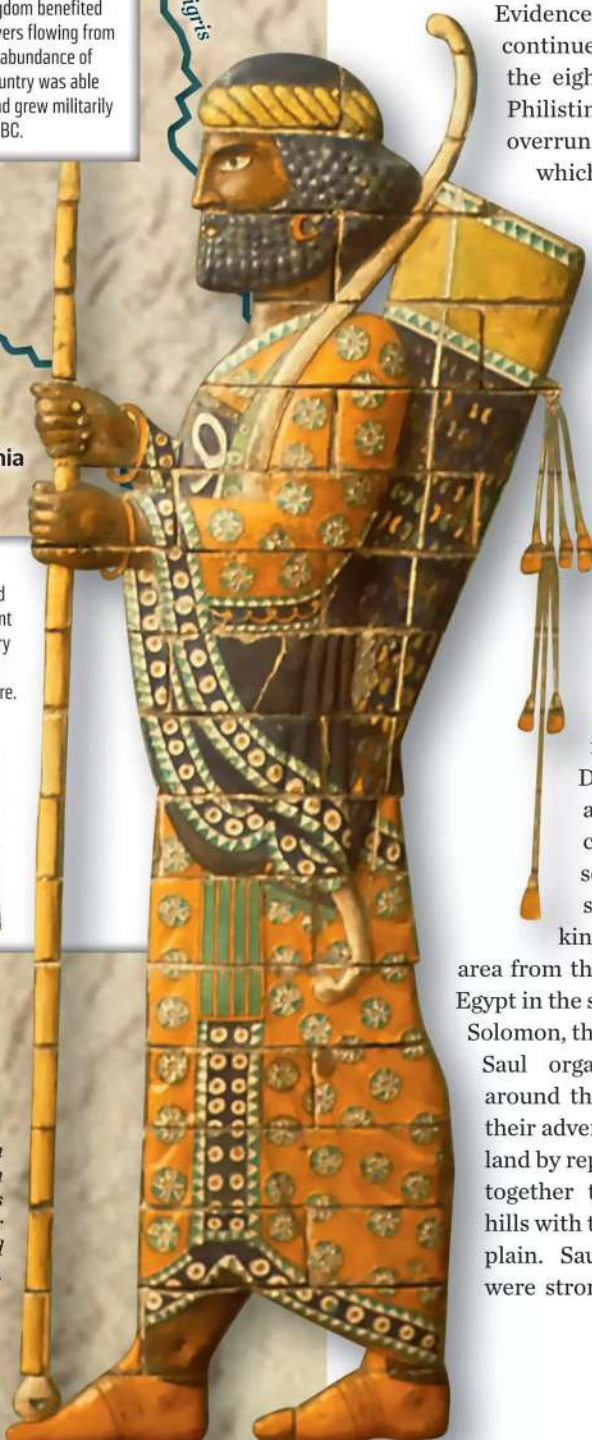


Babylonia

Babylonia in present-day Iraq dates from around 2200 BC and was one of the region's dominant powers in the eighteenth century BC. The capital, Babylon, was a centre of learning, art and culture.



Ancient Babylonian archers are depicted on one of ancient Babylon's gates, the Ishtar Gate, discovered and excavated in the 1920s.



with bows and arrows, and slings. And it was with slingshots that the Israelites – and not just David – seemed to excel. This was especially true of the elite left-handed warriors of Benjamin's tribe.


"Among Benjamin's elite troops, 700 were left-handed, and each of them could sling a rock and hit a target within a hairsbreadth without missing," says the Book of Judges, Chapter 20. If David took on Goliath, it's certainly not impossible that he was armed with a sling. The weapon was cheap and easy to make, and slingers served in the Israelite armies. They could accurately hit targets hundreds of metres away – and with such force that a hit to the head could be fatal.

Evidence shows that border disputes continued at regular intervals until the eighth century BC, when both Philistines and Israelites were overrun by the Assyrian Empire, which seized power.

Three kings

For the first few years after settling in the land of Canaan, the Israelites lived in traditional tribal communities. In all, the Jewish people consisted of 12 tribes, ruled by leaders known as judges. As the Israelites made more and more powerful enemies, the people gathered under one king in the hope of becoming stronger and beating back their foes.

They chose Saul as their first king, but it was not until David came to the throne that all resistance in Canaan was crushed. Israel then became so powerful that David subdued all the neighbouring kingdoms, eventually ruling an area from the Euphrates in the north to Egypt in the south. Under Saul, David and Solomon, the Israelites grew in strength. Saul organised the farmers living around the hills into militias to fight their adversaries, and David united the land by repelling enemies and bringing together the Israelites living in the hills with the inhabitants of the coastal plain. Saul, David and Solomon were strong rulers both externally ➤



The climate of ancient Canaan enabled the cultivation of cherries, citrus fruits and olives, among other crops.

and internally, and under the three kings the land flourished in terms of trade and construction. King Solomon, for example, built several fortresses, both inland and in Jerusalem, where, according to the Bible, he built the first sanctuary – Jerusalem's Temple – on the hill now known as the Temple Mount, in the tenth century BC.

Land flowed with milk and honey

The Jews were now firmly in control of the area that God had shown Moses and his followers. In Canaan, they had become a mighty force, but did the land that they had captured really flow with milk and honey, as the scouts reported in the Book of Numbers? Scholars have long interpreted the phrase as a picture of Canaan's fertility: the fields provided enough crops for the animals to graze and make milk, and the bees had access to abundant nectar from the plants to produce honey.

In the past, some academics argued that the honey described in the Bible was actually a kind of jam made from grapes or dates. Wild bees may have lived in Canaan, but the climate was not at all suitable for proper breeding, the traditional argument went. In 2007, however, a team of researchers discovered that the words might have to be taken more literally than previously thought.

During excavations at Tel Rehov in the Jordan Valley, a town that in ancient times was home to some 2,500 inhabitants, the researchers found a number of ancient hives. These consisted of several layers of rows of cylindrical tubes made of clay mixed with straw. Each cylinder was about 75 centimetres long and 30 cm in diameter. At one end, the cylinders had a hole for the bees to fly into, at the other a lid for the owners to remove



In 2007, archaeologists found 3,000-year-old beehives in the Jordan Valley – evidence that honey production was undertaken at that time.

when the honey needed to be collected. Using some grain spilled from a jar near the hives, the researchers were able to use carbon-14 analysis to date the discovery to around 3,000 years ago.

On the trail of the Philistines

The discovery was surprising – not only because biblical scholars didn't expect the Israelites to keep bees, but also because of the scale of the breeding. Archaeologists estimate that the 180 hives had room for about a million bees, and each hive could produce about five kilograms of honey. However, another surprise awaited the researchers.

By studying the wings and legs of bee remains, the researchers discovered that they did not belong to a local species but had been imported from Turkey. Not only were these bees quieter than the local insects, but they also produced eight times as much honey. The advantage was so great that the Israelites were happy to pay traders to transport the creatures hundreds of miles. Findings such as

the Tel Rehov hives and the Bible's accounts give us a good insight into the Jews' early history and way of life. Their enemies, the Philistines, on the other hand, remain a mystery. Scholars have long wondered who they really were, where they came from and how they ended up in Canaan. What is certain is that they were not one of the original peoples of the Middle East.

Archaeologists have found pottery remains in Philistine areas with writing in a non-Semitic language dating back to around 1150–1000 BC. Among the objects are stamp handles with text that's been proven to have been used on the island of Cyprus in the latter part of the Bronze Age – a fact that leads researchers to speculate that the people originally lived around the Mediterranean. The theory is backed by findings made in 2016, when archaeologists excavated a roughly 3,000-year-old Philistine burial site in **Ashkelon**, a Mediterranean town in the south of present-day Israel, about 50 km south of Tel Aviv. Its Mediterranean location and proximity to Egypt made Ashkelon a thriving Bronze Age trading hub, from where

ASHKELON

is located on the Mediterranean Sea, north of the Gaza Strip. One of the world's oldest cities, it was razed to the ground by Muslims in 1270 but has flourished again since Israel's creation in 1948.

Israelite weapons Slingshot

CHEAP The sling was cheap to make and was often called the shepherd's weapon.

LONG Slings could vary in length, but the norm was 90–100 centimetres.

FAR-REACHING Long-range tests show that a skilled slinger could hit targets 400 metres away with a projectile.



Philistines exported linen, papyrus and slaves to the rest of the ancient world. In the Iron Age, grain, wine and clothing also passed through this important trading town, which was also one of the Philistines' main centres of power.

The burial site contained over 150 individual graves dating from the eleventh to the eighth century BC, and has given archaeologists a further insight into the origins of the Philistines through their burial customs. In Canaan, the deceased were typically buried in a common grave, where they were placed on a mound or a kind of bench. In the cemetery at Ashkelon, however, the majority were buried in oval graves. Four out of 150 were cremated, and some of the bodies were placed in a burial chamber made of finely carved stones. Archaeologists are familiar with this practice from the Aegean region between Greece and Turkey, but it is unknown among the Canaanites.

The team behind the excavations has no doubt about the conclusion. The finds clearly show that the Philistines came from the Aegean, possibly Cyprus, and they settled in Canaan before their attack on Egypt. It is possible that the Philistine culture, which originated in the southern part of Canaan, was the result of various outside influences, as well as waves of migration from different places across the Mediterranean, says

Aren Maeir, professor of archaeology at Bar-Ilan University and director of the excavation of Gath – one of the Philistines' original five cities.

"In the material culture of the early Philistines we see something from Greece, from Cyprus, from Crete, from western Anatolia," Maeir says.

Sea Peoples settled in Canaan

The Philistines left no written sources, but archaeological discoveries and references in the Bible have led historians to conclude that they were one of the Sea Peoples who ravaged the Middle East in the latter part of the Bronze Age. The Sea Peoples' raids are documented on a stele at the mortuary temple of Ramesses III in Luxor, which portrays a battle in the Nile Delta between the Egyptians and the Sea Peoples in the early twelfth century BC.

A biography of Ramesses III, written by the pharaoh's son and successor and known as the Harris Papyrus, also recounts how Ramesses III defeated the Sea Peoples. According to the text, the fighting took place around 1190 BC and ended with the pharaoh taking the people back to his land as prisoners. Most likely, Ramesses III deported the Philistines to the land of Canaan, an area that was then under Egyptian rule. As the Egyptians' power waned, the Philistines gained their independence – an event that coincided with the Israelites' settling in the same territory.

Some scholars believe that the chaos in Canaan, the weakening of Egypt and the struggle for fertile land were triggered by a mild climatic disaster. Biologists have analysed pollen from deposits in the Lake of Gennesaret (also known as the Sea of Galilee) and see a sharp decline in the number of oak, pine and carob trees – plants that normally thrive in the Middle East – around 1250 BC. At the same time, the prevalence of trees that typically grow in drier regions increased. The change in vegetation shows that a persistent drought affected the area, and crops probably failing at the time when fighting broke out between the Israelites and the other peoples.

The drought theory is plausible but it's only one of many. Hopefully, more pieces of the puzzle will emerge, because despite the excavations, it has not yet been possible to confirm which of the Bible's accounts could be true. But one thing is certain: the Philistines and Israelites lived in the Promised Land at the same time, and Canaan flowed with milk and honey. Future research will have to clarify the rest. ■



WE KNOW FOR SURE

The Israelites dominated Canaan

- The Israelites settled as a people in Canaan – an area that includes modern-day Israel, the West Bank and Gaza – around 1250 BC.
- The Israelites fought for many years against the Philistines, a people who settled in five city-states in the western part of Canaan.
- The Philistines had a different culture to the Israelites.
- The land of Canaan was generally a fertile area.

3,000

years old. That's the age of the hives that archaeologists found in the Jordan Valley. The hives prove that beekeeping was practised in the land which, according to the Bible, "flowed with milk and honey".



WE NEED ANSWERS

The Philistines' origins are still uncertain

1

Where the Philistines came from when they settled in Canaan on the east coast of the Mediterranean remains unknown.

Some believe that the people originally lived in the Aegean area, while others believe that the Philistines came to Canaan from Anatolia. Those in favour of the first theory – that the Philistines came from the Aegean

region – cite burial customs and artefacts common to both cultures. They also point to a relief on a stele at the mortuary temple of Ramesses III in Luxor in which the Philistines are depicted in ox-carts and on chariots – menas of transport entirely unsuited to the Anatolian highlands. Meanwhile, critics of the theory argue that the stele does not depict a set battle and therefore cannot be used as evidence. The artefacts are also inconclusive, they say. Fortunately, DNA analysis of skeletons from a burial site near Ashkelon, one of the Philistines' cities, may soon provide clarity.

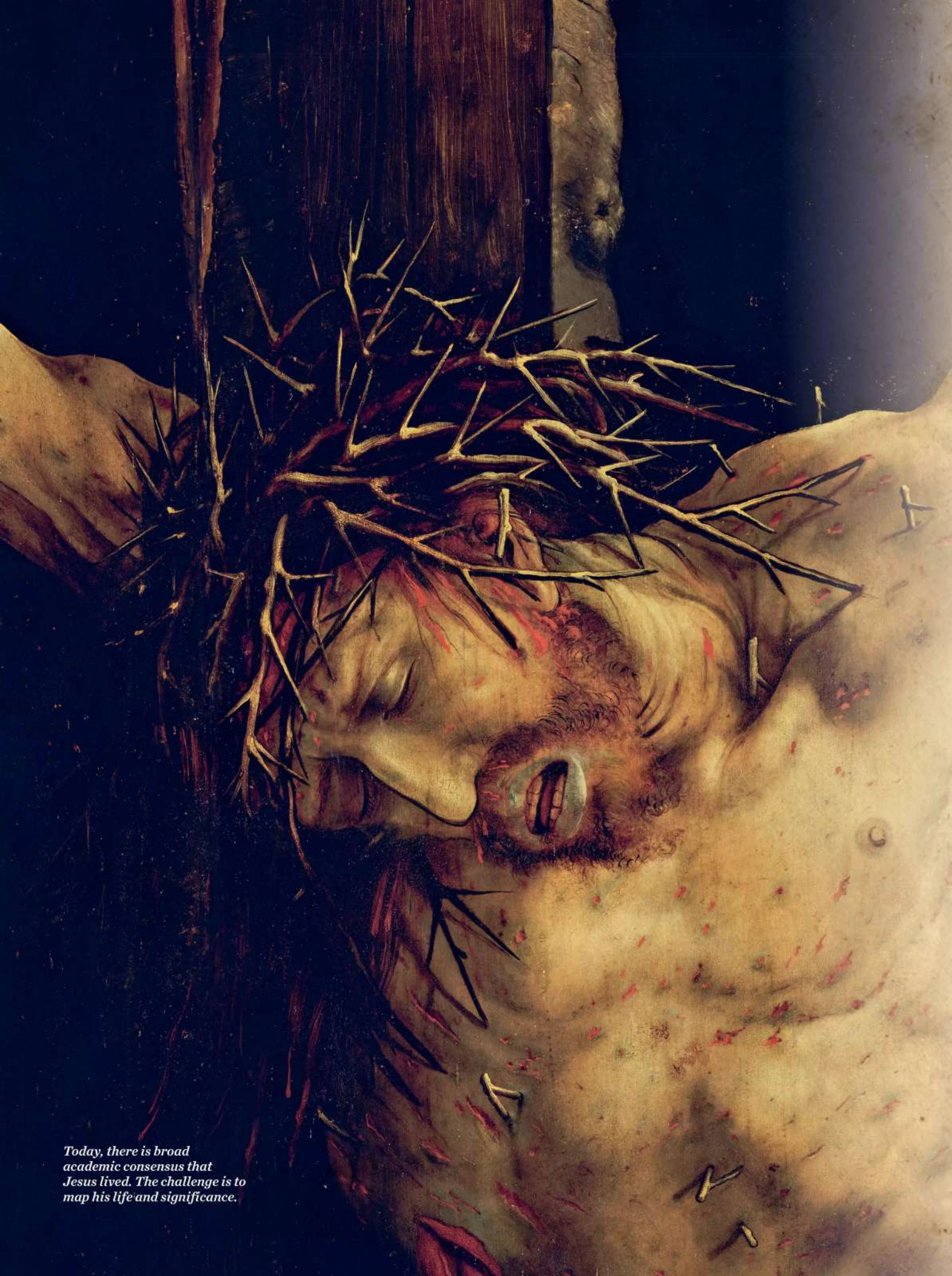
How did the Israelites come to dominate Canaan?

2

According to the Old Testament, Moses died before the Israelites entered the land of Canaan. He chose Joshua as his successor. The part of the Bible called the Book of Joshua tells how the Israelites defeated the other peoples of Canaan and became dominant in the area. However, archaeologists have found no conclusive evidence that a military conquest ever took place. Many historians therefore believe that the Israelites took over Canaan peacefully, absorbing parts of its culture and way of life. The question is still a source of controversy among academics.

Although the Bible describes the epic battles of the Jews, archaeologists have found little evidence of conflict.





Today, there is broad academic consensus that Jesus lived. The challenge is to map his life and significance.

WHO WAS JESUS?

No archaeological discoveries can help scholars find the answer to one of history's biggest questions: who was Jesus of Nazareth? **In all likelihood, Jesus did exist, but how was he able to gather a group of loyal disciples around him and lay the foundations of a world religion?**

The Mount of Olives is a peaceful place. The view from the top over the walls and towers of Jerusalem is breathtaking, and in the evening the air is cool, clean and filled with aromatic scents. But Jesus was unaware of the beauty of the night and the scents around him. A dark, cold sense of dread gripped his heart and frightened him. The terror grew as he walked the winding, stony paths through the night. Although he was accompanied by three of his closest friends, loneliness crept up on him.

"My soul is crushed with grief to the point of death. Stay here and keep watch with me," he insisted urgently.

He walked away to make a last desperate plea to God to let him escape what he knew was about to happen. The thought of a slow death on the cross was almost unbearable – even for the Son of God. When he returned, the others were asleep. The night drew to a close. All around Jesus, Jerusalem simmered with fear and anticipation. The city was celebrating the Jewish Passover, and the streets swarmed with pilgrims from near and far. The Romans, who controlled Palestine, were wary of

any sign of unrest and were keeping a close eye on Jesus. The carpenter from Nazareth had recently attracted their attention. He was gathering an alarming number of people around him, and his followers were saying that their God had chosen Jesus to liberate Palestine. The Romans didn't like that kind of talk.

Jesus knew his days were numbered. He, who just a year ago was wandering the land with his retinue of fishermen and other humble folk, was

now seen as a threat to mighty Rome. The punishment was a painful death on the cross. In a peaceful grove on the **Mount of Olives**, he now tried to reconcile himself to his inevitable fate. So says the New Testament account of Jesus's life. While Jesus and his journey are described in detail in the Bible's four Gospels, historical

evidence and sources are scarce.

“The Romans, who controlled Palestine, were wary of any sign of unrest and were keeping a close eye on Jesus.”

Mentioned in historical sources

To die on the cross was a cruel fate, but according to the Bible, Jesus's life could not have ended any differently. Everything in his life pointed to a special, dramatic ending. The Gospels of the New Testament tell us that angels appeared when the baby Jesus was born, and kings honoured the infant with rich gifts. At the age of 12, Jesus visited Jerusalem with his parents and went ➤

THE MOUNT OF OLIVES

is a ridge east of Jerusalem. The mountain is named after the olive trees that grow on its slopes.

off to discuss the Holy Scriptures with scholars in the Temple. None of this can be substantiated by historians. That Jesus lived, however, is in little doubt. In addition to the Bible, he is mentioned by Roman and Jewish sources from the first century AD. Jewish historian Josephus describes a teacher and miracle-worker named Jesus, while the Roman Tacitus tells of "Christus" who "had undergone the death penalty in the reign of Tiberius, by sentence of the procurator **Pontius Pilate**".

PONTIUS PILATE was the Roman prefect of the province of Judea. Prefect was the title given to leaders of important smaller Roman provinces.

From events mentioned in the Gospels, historians also know roughly when Jesus was born. To establish Jesus's birth date, academics look to two important events. The Bible specifically mentions King Herod in connection with Jesus's birth. We know that Herod most likely died in 4 BC, so Jesus was born either in 4 BC or shortly before. Chinese sources mention a large, bright star in the sky in 5 BC, probably a comet. This leads biblical scholars to speculate that the comet was the star described in connection with Jesus's birth.

The two events lead most historians to guess that Jesus was born around 5-4 BC, but beyond that they can say nothing about his birth and childhood. Scholars think it most likely that Jesus

was born in Nazareth, where his parents lived. The Gospels of Luke and Matthew mention that Jesus was born in Bethlehem, where his parents had gone for a census, because Joseph "was a descendent of King David". Historians find this unlikely. A census did take place around the time of Jesus's birth, but it was local and did not cover the Galilee area where Nazareth was located.

Moreover, academics reject the idea that Jews would be obliged to travel to a distant city where their ancestors had lived many generations ago. The Romans counted the inhabitants of Palestine in order to tax them, and only their present whereabouts were therefore of interest.

Jews were held in an iron grip

The fact that Jesus is alleged to have been born in Bethlehem – King David's birthplace – is probably because the Gospel writers wanted to link Jesus with David. According to Jewish tradition, around a thousand years before Jesus's birth, David had gathered the 12 tribes of the region under his rule and created a powerful kingdom. Israel under King David was strong and rich, and its people happy. In Jesus's day, a person's reputation was closely linked to their ancestry, and by making King David his ancestor, the Gospel writers gave



*According to the Bible,
Jesus was born in
Bethlehem during a census.*

The first... inscription | First century AD

Millennia-old ossuary may be fake

In 2002, the press reported that an Israeli dealer in antiquities had found an ossuary inscribed "James, son of Joseph, brother of Jesus". The box, used to store bones of the dead, is interesting because it may bear the oldest text describing Jesus, making it one of the few first-century relics linked to the Gospels. But while the ossuary itself is genuine, the authenticity of the inscription has been called into question. According to the official Israeli Antiquities Authority, the inscription is fake and was added much later. However, other experts claim that the inscription is at least 50 years old and, if it was created that recently, its creation would have needed ultra-modern methods that weren't known at that time.



James, mentioned in the inscription, was related to Jesus. He was one of the original leaders of the Christian community in Jerusalem.

the Son of God the finest possible pedigree. Jesus was barely related to David, but – like most Jews of his time – he probably had strong feelings for Israel's legendary king, who had become a symbol of freedom for the Jewish people. Five hundred years after David's death, his kingdom fell apart because of internal strife, and the machinations of other powers in the region who were keen to get their hands on the Jews' fertile homeland. Several rulers came and went, filling their storehouses with grain, dates, figs and other goods from David's kingdom.

By the time of Jesus, the Romans ruled Palestine. They had arrived around 60 years earlier and held the people in an iron grip. In the south of Palestine, a Roman prefect governed. By allowing him to ally with powerful groups among the Jews – the rich and the clergy – the Romans kept the peace and gave the Jews some degree of influence.

The northern part of Palestine – where Jesus came from – was not ruled directly by the Romans, but by a local leader. In reality, however, he was merely a Roman puppet. As in the south, the majority of the population – the 85–95 percent who were neither economically nor religiously powerful – had no say. That included Jesus's family, which by all accounts was neither wealthy nor influential.

Taxation of the Jews was harsh, and the Romans confiscated grain, animals and supplies without warning, and took horses and wagons for transport. Theft of personal property and rape of Jewish women were also common. Then there were the religious transgressions, such as when

Roman soldiers carried decorated standards in the streets, violating the Jewish prohibition of images. Just outside Palestine's borders, 25,000 legionaries stood ready to quell any rebellion. No one doubted that the Jews were far from masters of their own house. For anyone growing up under the oppressive regime, the word "Roman" triggered a sense of fear and humiliation. Anger boiled over, and many began to talk about how Israel needed a new King David to eject the Romans and set the Jews free.

God wanted to help his people

What the young Jesus thought about the Romans, historians don't know, because they have no credible sources for his life until his late twenties.

But Palestine at that time was teeming with religious movements preaching great change. According to Jewish tradition, God would always help his people as long as they followed him, and in this way, resistance to the

Romans was closely linked to religious revival. The hope of a new, strong king was linked to the prophecies of the Holy Scriptures about one who would "strike [the serpent's] head" and restore freedom and prosperity to the Jews.

Throughout Palestine, lay preachers, each in their own way, proclaimed the imminent coming of the Messiah and God's salvation. The messages were compelling, and many people were attracted to the often-charismatic figures who led religious movements. Jesus, too, was carried ➤

” Palestine at that time was teeming with religious movements preaching great change.

Jesus wandered from north to south in Galilee



Although the Bible's accounts cannot serve as a historical source, the Gospels can still provide a picture of the times in which Jesus lived. Galilee was under Roman occupation, and the central cities were Bethlehem and Jerusalem.

MEDITERRANEAN

Jerusalem was one of the most important cities in the area in Jesus's time. From here, the prefects and puppet kings of Rome ruled the province of Judea with a heavy hand.



According to the Bible, John the Baptist performed his baptismal acts at Bethabara, east of the Jordan River. The exact location cannot be determined today. **Jesus was also baptised in the water here.**

Cana was the city where Jesus performed his first miracle, turning water into wine. No one today knows where Cana was, but historians believe that it probably existed. It is mentioned in the Gospels, which were written for people who knew Judea and its towns well.

Historians estimate that Nazareth in Jesus's time was a small town with fewer than 500 inhabitants. Since Joseph and Mary lived there, according to the Bible, it is most likely that Jesus was born in Nazareth and not in Bethlehem. It would have been highly unusual for inhabitants of Rome's provinces to travel several hundred miles for a census, as the Bible claims.

In the Old Testament, Bethlehem is mentioned as the place where the legendary King David was crowned King of Israel. David's role as mythical saviour may be the reason why **two of the Gospels place the birthplace of Jesus in the "city of David"**.



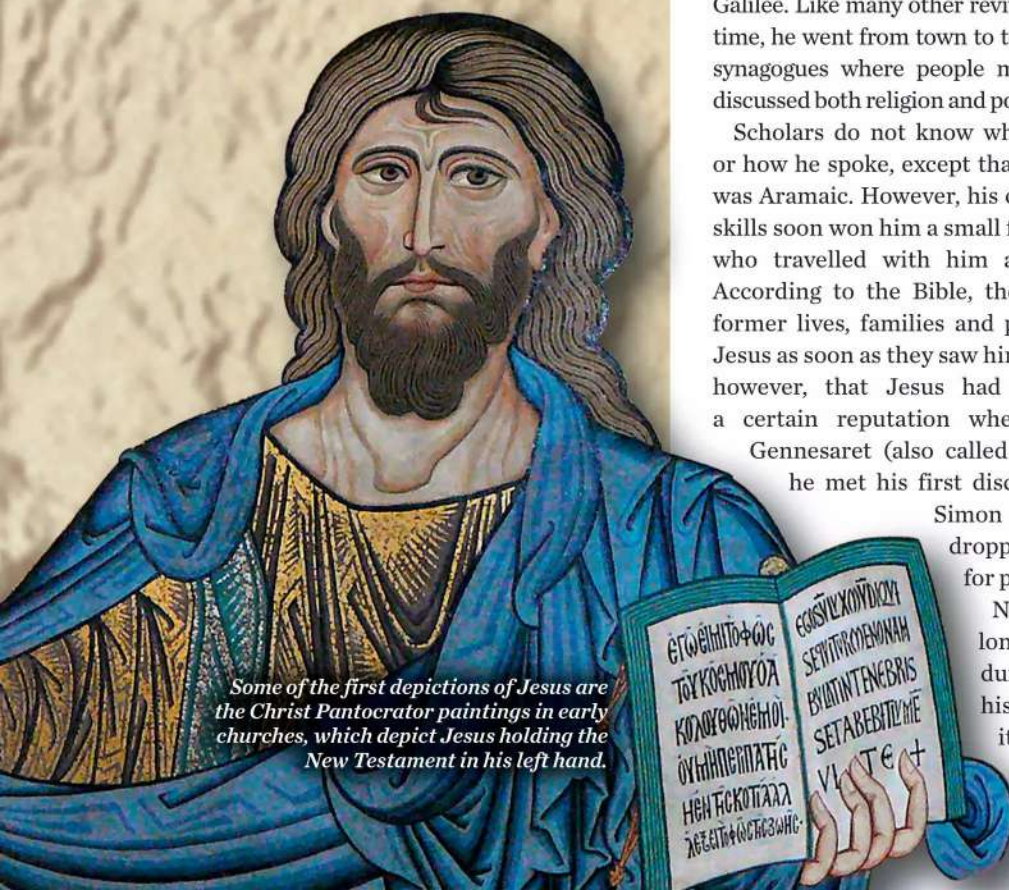
EGYPT

RED SEA





At 214 metres below sea level, the Lake of Gennesaret, or Sea of Galilee, is the world's lowest freshwater lake. According to the Bible, this is where Jesus walked on water.



Some of the first depictions of Jesus are the Christ Pantocrator paintings in early churches, which depict Jesus holding the New Testament in his left hand.

away. When he was in his late twenties, he joined a man called **John the Baptist**, who was busy spreading his beliefs in rural Palestine.

By today's standards, Jesus's inspiration was almost an extremist. The Gospel tells us that he dressed ascetically – in clothing woven from camel's hair – and lived in the wild on "locusts and wild honey." The sermons John preached to Jesus and his other followers revealed him as an uncompromising revivalist. The Kingdom of God was at hand, John preached, dismissing unworthy followers with cries that they were a "brood of snakes" who could come back when they had repented of their sins. He demanded solidarity among his followers with the words:

"If you have two shirts, give one to the poor. If you have food, share it with those who are hungry," (Luke 3:11). John made no secret of the fact that those who did not keep to the right path would suffer. "Who warned you to flee the coming wrath?" John thundered. "Every tree that does not produce good fruit will be chopped down and thrown into the fire."

Jesus's career lasted only one year

According to the Gospels, Jesus was baptised by John. Jews always washed before visiting the temple, but baptism as a transition to a new and more God-fearing life was devised by John, who immersed his followers in the River Jordan. Soon after, Jesus himself began preaching around Galilee. Like many other revivalist preachers of the time, he went from town to town, speaking in local synagogues where people met, ate together and discussed both religion and politics.

Scholars do not know what Jesus looked like or how he spoke, except that his native language was Aramaic. However, his charisma and oratory skills soon won him a small following of disciples, who travelled with him around the country. According to the Bible, the disciples left their former lives, families and professions to follow Jesus as soon as they saw him. Historians believe, however, that Jesus had already established a certain reputation when, at the Lake of Gennesaret (also called the Sea of Galilee),

he met his first disciples: the fishermen Simon and Andrew, who dropped their nets to "fish for people" with Jesus.

No one knows how long Jesus preached during this period, but historians guess that it was no more ➤

JOHN THE BAPTIST

was a prominent religious preacher at the time of Jesus. He is celebrated as a prophet in Christianity as well as in Islam.

THE GOSPEL OF MARK

is the shortest and probably the oldest of the four Gospels.

than a year. All the evidence suggests that the coordination attempts within the movement failed. Jesus and his disciples lived from day to day, sleeping where they could find shelter, and eating with those who offered a meal. Had Jesus been on the move for more than a year, he would have been better organised, say scholars, who also point out that neither he nor his disciples, all of whom were of humble means, would have been able to go much longer without any income.

Criticism of Romans was mild

Shortly after Jesus's baptism, John was arrested by the Romans and executed. According to the Gospels, John had accused the local ruler of immorality, and in revenge, the ruler demanded that John the Baptist's head be brought to him on a platter. The story is hard to confirm, and more likely – as the historian Josephus points out – John was killed because his sharp opinions and oratory skills made him a threat. The occupying power knew that religion could be politically explosive, and John's promises of a Kingdom of God could be interpreted as a call to rebellion.

There is no evidence that Jesus made the Romans nervous at this point in time. If he had, they could easily have stopped his career before it had even begun.

Jesus's message was similar to John's, however: the Kingdom of God was at hand and the time had come to repent and follow his commandments. And, like John, Jesus had a strong social message:

there was equality in the Kingdom of God, so here on Earth the same principles should apply. People serve God best by helping the weakest in society, Jesus said. This was in direct opposition to the interests of the Romans.

In other areas, too, Jesus set himself against the existing order. When, according to the **Gospel of Mark**, his family tried to get him away from the religious revivalists because they thought he was "out of his mind" – presumably an allusion to some kind of mental illness – he knocked them back by refusing to let them in and calling his disciples his true family. This was neither an easy nor a popular gesture in a society that followed the commandment to honour one's parents.

In other respects, Jesus was more relaxed than most. He loved good food and a glass of wine with friends – even to the point where his opponents branded him an immoral man. "For John [the Baptist] didn't spend his time eating and drinking, and you say, 'He's possessed by a demon.' The Son of Man, on the other hand, feasts and drinks, and you say, 'He's a glutton and a drunkard,'" said Jesus, clearly tired of being compared to the ascetic John (Matt. 11:18–19).

In political matters, on the other hand, Jesus seemed harmless, although he subtly criticised and made fun of the Romans. Jesus's sermons, for example, were filled with references to the difference between the earthly and heavenly kingdoms, where the earthly – which for a Jew in Jesus's day was synonymous with the Roman Empire – was evil, unjust and superficial, while the Kingdom of God was the exact opposite.

An example of his indirect criticism of the Romans is found in the Gospel of Mark, when Jesus cast out evil spirits from a man. According to the account, Jesus transferred the spirits to a herd of pigs, who plunged over a cliff. When Jesus asked the spirits their names, they replied: "My name is Legion, because there are many of us."

According to biblical scholar John Dominic Crossan, who has studied the historical Jesus extensively, the story can be read as an anti-Roman parable, because "Legion" was an obvious reference to the Roman legions.

The story ends with the drowning of the swine, which Jews consider unclean animals. If the pigs are a symbol of the Romans, the parable is a sharp statement about the occupying power, wrapped up in a relatable story of miraculous healing.

In a similar vein is Jesus's answer to a question about whether Jews should pay taxes to the Romans. "Give to Caesar what belongs to Caesar,

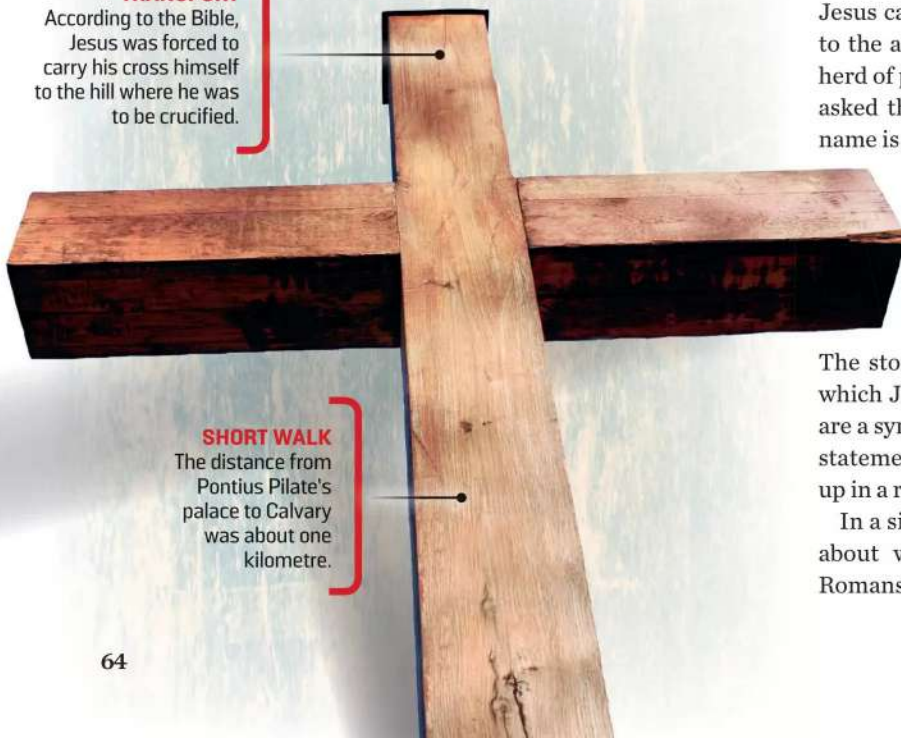
Jesus's torments | The cross

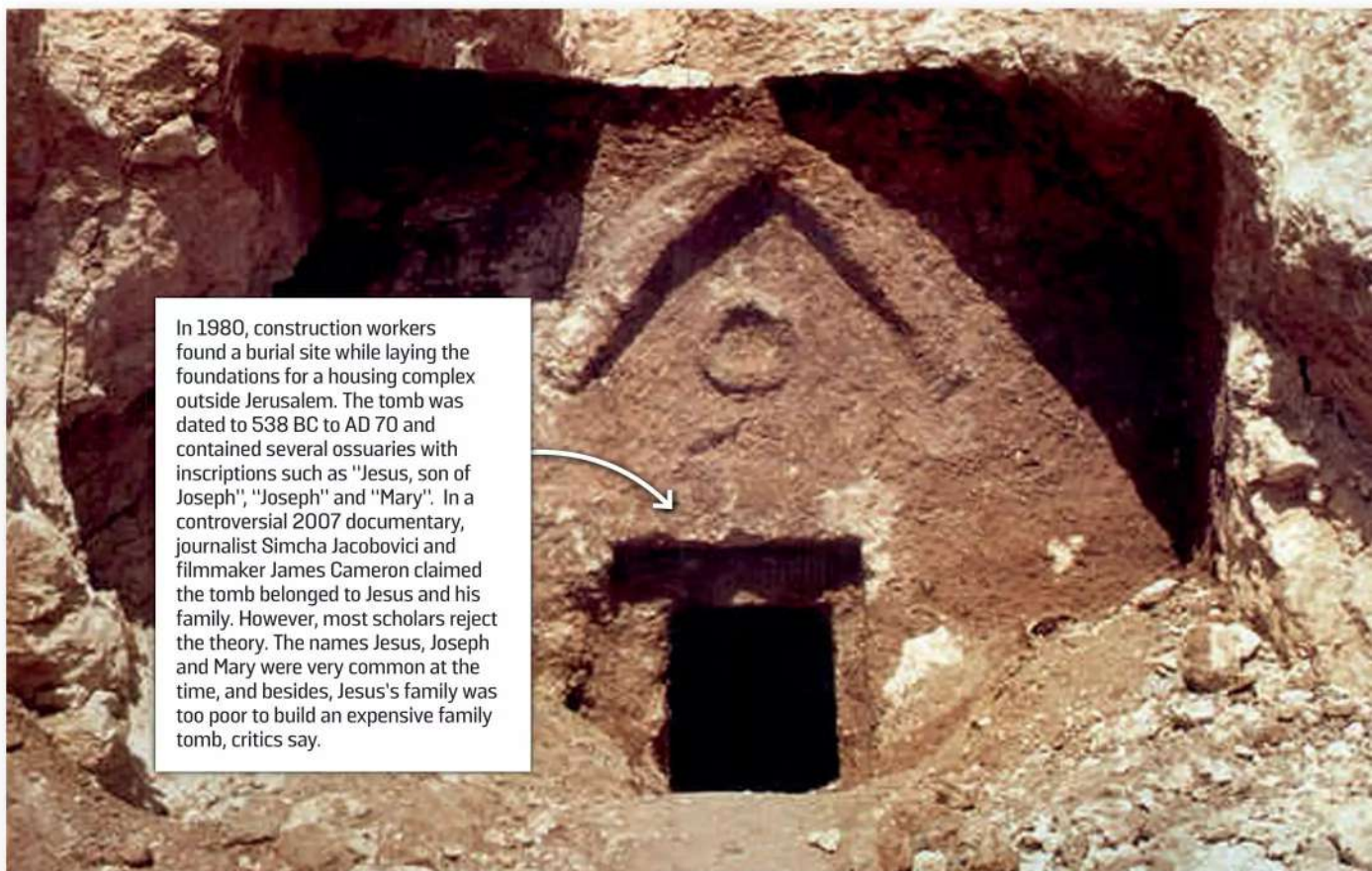
TRANSPORT

According to the Bible, Jesus was forced to carry his cross himself to the hill where he was to be crucified.

SHORT WALK

The distance from Pontius Pilate's palace to Calvary was about one kilometre.





In 1980, construction workers found a burial site while laying the foundations for a housing complex outside Jerusalem. The tomb was dated to 538 BC to AD 70 and contained several ossuaries with inscriptions such as "Jesus, son of Joseph", "Joseph" and "Mary". In a controversial 2007 documentary, journalist Simcha Jacobovici and filmmaker James Cameron claimed the tomb belonged to Jesus and his family. However, most scholars reject the theory. The names Jesus, Joseph and Mary were very common at the time, and besides, Jesus's family was too poor to build an expensive family tomb, critics say.

The tomb with the inscription is located in the Talpote district of south-east Jerusalem, about a kilometre from Calvary.

and give to God what belongs to God," Jesus replies. The answer is ambiguous at best, for what can – from a believer's point of view – belong to Caesar that does not already belong to God? However, Jesus refrained from direct criticism of Rome, and there is nothing to suggest that his talk of a Kingdom of God was an appeal for rebellion.

Although calling for political and social change, Jesus expected upheaval to come from God, not from man, historians say. Moreover, Jesus was always welcoming to the representatives of the Roman Empire, stressing that people should love everyone – even one's enemies. Jesus ate with tax collectors, the loathed representatives of the Roman Empire, and willingly stepped in to help when a Roman soldier requested help for his sick servant (Matt. 8:5–10).

Pharisees were opponents

Jesus rejected political ambition out of hand, saying, "The Son of Man came not to be served but to serve others." If the Jews had hoped for – and the

Romans feared – a Messiah with a flaming sword in his hand, Jesus dashed the expectations of both groups. Historians believe that Jesus saw himself as a righteous Jew, not a founder of a new faith. He kept the Ten Commandments, which according to Jewish belief were given to man by God, and he observed the commandment to purify himself before Passover feasts, sacrifices and the like. The

“ If the Jews had hoped for – and the Romans feared – a Messiah with a flaming sword, Jesus dashed the expectations of both groups. ”

Bible's accounts of other Jews condemning Jesus for taking the precepts lightly are expressions of internal Jewish criticism or fear of Jesus, not statements about his behaviour, argues religious historian EP Sanders, retired professor of religion at Duke University, North Carolina.

Indeed, many of the stories in the Bible are about leading

Jews – especially the scribes – criticising Jesus for not keeping the scriptural commandments. For example, one of the Gospels claims that the Pharisees – a group of Jews the Gospel writers frame as hypocrites – wanted to kill Jesus because he healed a man on the Sabbath, the ➤

Continued on page 69

From **4 BC** to **AD 29**

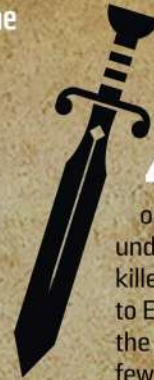
CARPENTER'S SON DIES ON CROSS

Strange as it may sound, historians today agree that Jesus came into the world before the year AD 1. His life is primarily described in the Bible, but we know the date of his death from Roman sources.

4 BC According to most historians, Jesus is born between 6 and 4 BC.



4 BC The three wise men visit the newborn Jesus. They bring gifts of gold, frankincense and myrrh.



4 BC King Herod orders all boy children under two years of age to be killed. Mary and Joseph flee to Egypt with Jesus, where the family lives for the next few years.



AD 28 Jesus begins his journey to Jerusalem with his disciples. The plan is to reach Israel's capital at Passover – the Jews' most important festival.



AD 28 Jesus wanders through Judea with the disciples, performing miracles. At the Lake of Gennesaret, he walks on water, and during a sermon at Bethsaida, he turns five loaves of bread and two fish into enough food for his thousands of followers.

AD 29 Jesus rides a donkey into Jerusalem for the festival of Passover.



AD 29 After visiting the Temple in Jerusalem, Jesus has a final meal (the Last Supper) with his disciples. Shortly after, he is betrayed by Judas.





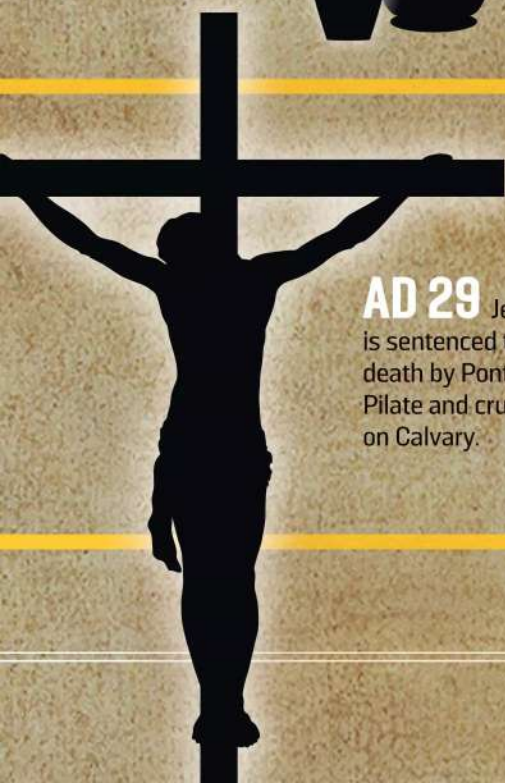
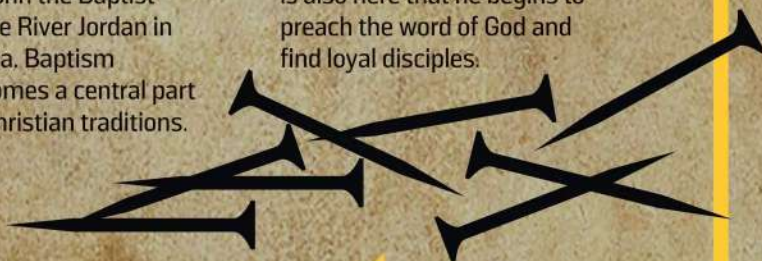
AD 8 Jesus visits the Temple in Jerusalem at the age of 12. This is the first time he is mentioned after the flight to Egypt.

AD 26 Jesus performs one of his most famous miracles when he turns water into wine at the wedding in Cana.



AD 26 At the age of 30, Jesus is baptised by John the Baptist in the River Jordan in Judea. Baptism becomes a central part of Christian traditions.

AD 8-26 Jesus works as a carpenter in Nazareth. It is also here that he begins to preach the word of God and find loyal disciples.



AD 29 Jesus is sentenced to death by Pontius Pilate and crucified on Calvary.

AD 29 Jesus rises from the dead and after 40 days ascends to Heaven.



Roman sources confirm that a man called Jesus was arrested and sentenced to death by Pontius Pilate.



Jewish holy day. Historians point out that the rules only forbid Jews to work on a Sabbath, and that Jesus's healing – which comes about by asking the man to stretch out his hand – can hardly be considered work.

EP Sanders believes that the Gospel writers have distorted the stories. Jesus probably had lively discussions with other Jews, but the disagreements stayed within the bounds that most orthodox Jews could accept. According to religious scholar Catherine Murphy of Santa Clara University, California, the Pharisees were far more tolerant than the Gospel writers portray, while the “scribes” were a mixed group of theologians, local recorders and court clerks, who as a group could hardly be attributed any overall power or influence. The attempt of the Gospel writers to make Jews and Judaism the enemies of Jesus, who would prevent him from spreading the true teachings, is due – according to EP Sanders – to the fact that the Jews were the Christians' fiercest theological opponents during the period when the Gospels were written.

Jesus was received as saviour

During the year that Jesus travelled and preached, his following grew steadily. Among the countless preachers who promised God's salvation and deliverance from bondage, Jesus established himself as a charismatic figure. His message of God's boundless love and forgiveness appealed to almost everyone, and his eloquence made many prefer to listen to his heartfelt descriptions of God's kingdom rather than more abstract interpretations of sacred scripture by traditional scholars. Jesus's words gave hope to those who dreamed of a saviour who could deliver them from Roman oppression, and thousands turned out when he delivered his fiery speeches.

Although several of John the Baptist's disciples also began to preach, none achieved a popularity that came close to matching that of Jesus. When Jesus showed up for the Passover feast in Jerusalem, the tense situation came to a head.

Many of the pilgrims in the city had heard of him, and the Romans were nervous. According to the Gospels, they had good reason to be, for Jesus was received by a large crowd that “spread their garments on the road ahead of him, and others cut branches from the trees and spread them on the road ... and the people all around him were shouting, ‘Praise God for the Son of David!’” says the Gospel writer Matthew.

Historians debate whether Jesus travelled to Jerusalem simply to celebrate like other

Jesus's torments

Crown of thorns

TORTURE According to three of the Gospels, Jesus was given a crown of thorns as part of the torture.

HUMILIATION The crown of thorns was not only painful to wear, but also a way to humiliate the new “king of the Jews”.

observant Jews or whether he expected God to reveal his kingdom during the symbolic feast. Based on the Gospels, most lean towards the latter. In any case, the combination of a large crowd and the name David must have made the Romans nervous and wary. Jesus, realising that the Romans could not tolerate his presence much longer, gathered his disciples for a final meal.

He then went up to the Mount of Olives with his most trusted followers, to find inner peace and reconcile himself to his fate. As he walked around the mountain in despair, events began to play out just as he had feared and soon a group of sombre-looking men surrounded him. Jesus could no longer escape his divine destiny.

Pilate coldly condemned Jesus

According to the Gospel of Matthew, “a crowd of men armed with swords and clubs ... sent by the leading priests and elders of the people” came and led Jesus away. One of Jesus's own disciples, Judas Iscariot, had shown them the man they should apprehend. Historians believe that the Judas story may be true, since the Gospel writers had no immediate interest in inventing such an embarrassing story of betrayal within their own ranks. Judas's motives are difficult to assess. According to some theories, he was disappointed that Jesus did not fight the Romans more directly, and he wanted to provoke a confrontation.

Others believe Judas betrayed his master out of simple greed – the Gospels say he was paid 30 pieces of silver. The Roman prefect Pontius Pilate, according to the Gospels, was persuaded by the Jewish leaders to execute ➤



The crucified Jesus was taken down from the cross on Calvary. He was then buried nearby.

Jesus. Infuriated by Jesus's exposure of their hypocrisy, they accused him of blasphemy, the Bible says. A crowd of ordinary Jews supported the leaders, and no matter how hard Pilate tried, they wouldn't let Jesus go. Frustrated, Pilate washed his hands as a sign that he was distancing himself from the judgment on Jesus. This account does not fit historians' knowledge of the power structure in Roman-occupied Palestine.

The Romans may have wanted to be on good terms with the Jewish elite, but power ultimately lay with the occupiers. The Jews' part in Jesus's death is therefore extremely limited and mostly a reflection of the local elite trying to adapt to the reality of Palestine around the year AD 30; a Jewish revolt would have been the death of them all, and in an attempt to avert the Romans' wrath, they probably agreed to have Jesus arrested. This

version is also confirmed in the Gospel of John by a Jewish high priest who met with leading Jews to discuss the danger of Jesus gaining so many followers just before Christ left for Jerusalem.

"It's better that one man should die for the people," he remarked. They then decided to side with the Romans so as not to jeopardise the peace and their privileged positions. It is probably true, therefore, that a group of Jews seized Jesus.

The image of Pontius Pilate as a good-hearted and somewhat insecure official is also inconsistent with other sources. Pilate was known as a ruthless prefect who had people executed without trial. For example, a few years after Jesus's death, he had a congregation of pilgrims murdered in Palestine – an act that got him fired. The reason the Gospels paint such a benign picture of Pilate – and of the Romans' role in Jesus's death in general – is that, according to historians, first-century Christians needed to be on good terms with the occupiers, while the Jews' role as a power in Palestine played out.

Jesus died in despair

"He was [the] Christ. And when Pilate ... had condemned him to the cross, those that loved him first did not forsake him," Josephus writes of Jesus's execution. The details of the crucifixion are not known to historians, but the standard procedure was for the condemned man to have his hands and feet nailed to the cross so that he hung by his shoulders. The position puts so much pressure on the diaphragm that the person suffocates. This death was considered humiliating and usually reserved for slaves, rebels and common thieves. Historians believe that Jesus was probably sentenced under the laws on damaging the reputation of Rome – that is, a political sentence – if the governor even bothered to refer to the law. The agony could last several days, but Jesus escaped mercifully. He died after nine hours, while, according to the Gospels, he exclaimed:

"My God, my God, why have you abandoned me?" Some historians believe the phrase is a later addition. Others see it as proof that Jesus did not expect to die on the cross.

Whether Jesus's fate was preordained or he was simply in the wrong place at the wrong time, the crucifixion changed the course of history. The Romans had crushed Jesus the man. In turn, they had paved the way for a religious movement so powerful they could never have foreseen it. ■



WE KNOW FOR SURE

Jesus died on the cross

- Roman sources mention that **Jesus was condemned to death by crucifixion**. This is the surest proof of Jesus's existence.
- Jesus was a religious preacher. The Gospels and historical sources describe **Jesus as a preacher with a relatively large following**.
- Jesus must have been charismatic. **He built a following of loyal disciples who devoted their lives to proclaiming the word of Jesus.**

4 BC

is the most likely date for Jesus's birth. He certainly came into the world before the year AD 1, which is usually used to time his birth.



WE NEED ANSWERS

How many people followed Jesus?

1 It is certain that Jesus had 12 very loyal followers, whom we know today as his disciples. Beyond that, we don't know much about the number of people who

followed him. In all likelihood, however, his following was quite sizeable, based on the fact that otherwise the Romans would not have needed to arrest and crucify him.

Where was Jesus buried?

2 For centuries, most Christians believed that the Church of the Holy Sepulchre was built on the spot where Jesus was first crucified and later buried. But in the nineteenth century, a number of scholars cast doubt on the location. They

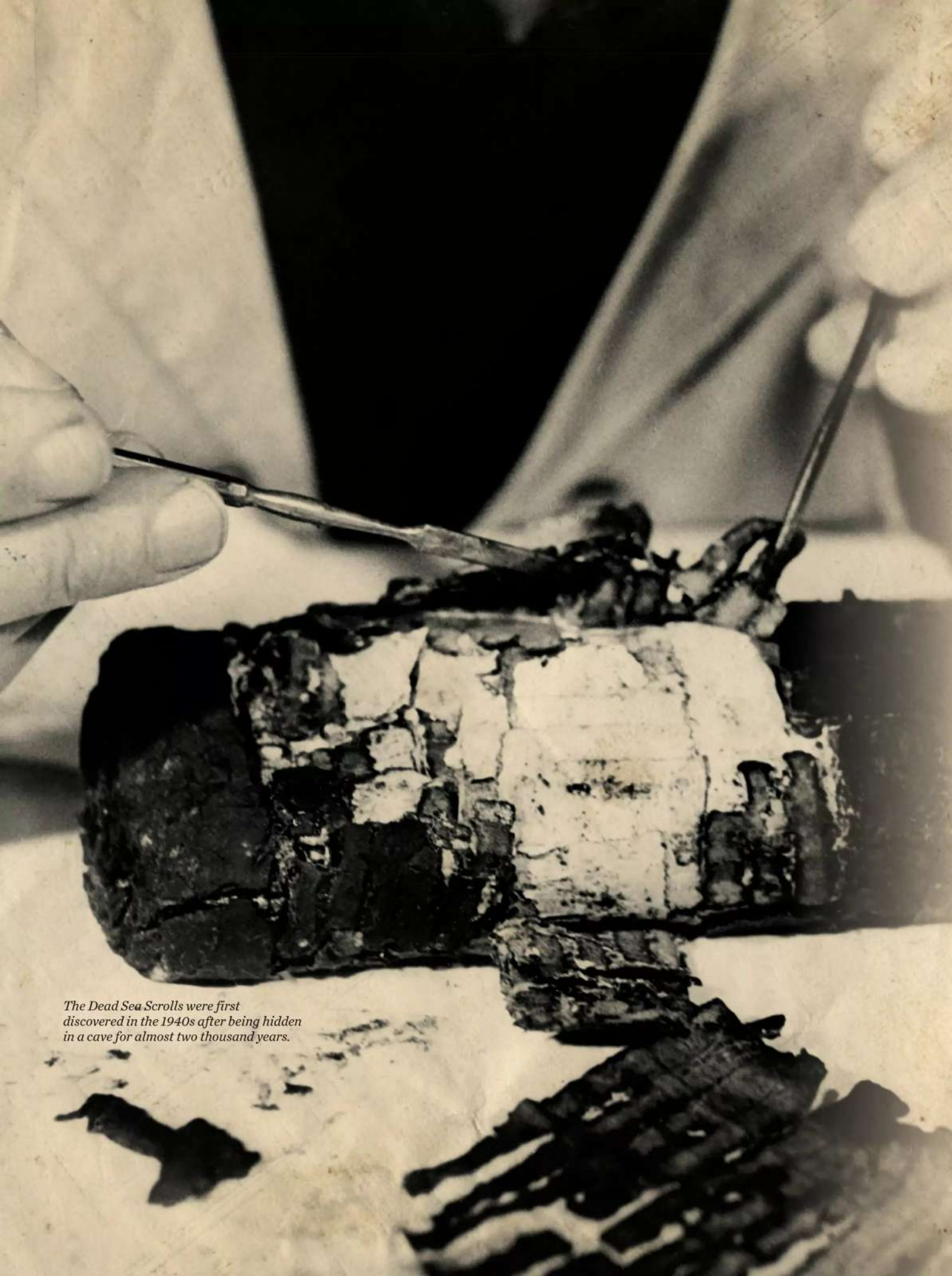
pointed out that the church was built inside Jerusalem's city walls, even though the oldest accounts of the crucifixion took place outside the city walls. Today, no one knows where Jesus was buried after his death, but probably somewhere outside the ancient city walls, near Calvary.

What was Jesus's goal?

3 It is almost impossible to determine from historical sources what Jesus's mission was: whether he wanted to reform Judaism or create a new religion. We do know, however, that in Judea the period around Jesus's life was marked by a long line of so-called prophets of doom, who prophesied that the apocalypse was near and that a new Messiah would restore David's kingdom and free the Jews from Roman domination. Jesus probably had views that aligned quite well with these, and he saw himself as the Messiah.

According to several sources – including the historian Josephus – Jesus was crucified. He probably died of slow asphyxiation.





The Dead Sea Scrolls were first discovered in the 1940s after being hidden in a cave for almost two thousand years.

INSIGHT INTO THE DEAD SEA SCROLLS

In 1947, a goatherd came across ten ancient scrolls in a cave near the Dead Sea. He had unwittingly made the greatest archaeological discovery of the century. **Since then, the scrolls have been examined countless times to determine who wrote the texts, what they say, and whether they are genuine.**

During the winter of 1947, 16-year-old Bedouin Muhammed Ahmed al-Hamed and his two older cousins were herding sheep and goats through the ruined city of Qumran near the north-western shore of the Dead Sea. Suddenly, one of the goats ran up a steep hillside and disappeared into a cave. Irritated, Muhammed followed the animal and, to scare it back out, threw a stone into the cave. The sound that followed piqued Muhammed's curiosity. Instead of the smash of stone against stone, he heard a clatter, like pottery breaking. Muhammed entered the cave to investigate. The sight stopped him in his tracks. Hidden in the semi-darkness were as many as ten ancient, sealed clay pots and a collection of shards.

Upon closer inspection, one pot turned out to contain three yellowed manuscripts. In all, Muhammed and his cousins found seven scrolls in the cave.

He took the scrolls to a local antiquities dealer, who reportedly bought the find for around \$20 – a staggering sum by the young Bedouin's standards.

What neither Muhammed nor the dealer knew at the time was that the fragile, ancient scripts

were the discovery of the century. The 2,000-year-old Dead Sea Scrolls held important secrets and unique insights into the people and beliefs of the Holy Land around the time of Jesus Christ's birth. They also gave an understanding of how religious writings came into existence, and a clue that the Bible could have ended up very different.

Syriac monastery got hold of scrolls

How many times and how the scrolls changed hands during 1947, historians do not know. But what is certain is that a year later, in February 1948, the ancient writings were in the possession of the Syriac Orthodox **Monastery of Saint Mark**.

The monastery's librarian, Father Butrus Sowmy, called John C Trever, a US archaeologist and biblical scholar who worked at the American Archaeological School in Jerusalem. Sowmy had found some old manuscripts that he wanted Trever to look at. The scrolls were wrapped in Arabic newspaper and well preserved, Trever noted. A quick look at one of the school's books on ancient biblical texts told

him the find could be highly significant. The writings bore a striking resemblance to the oldest known biblical text – the first-century Nash Papyrus.

Trever had identified the first pieces of writing from the collection of texts we know today as ►

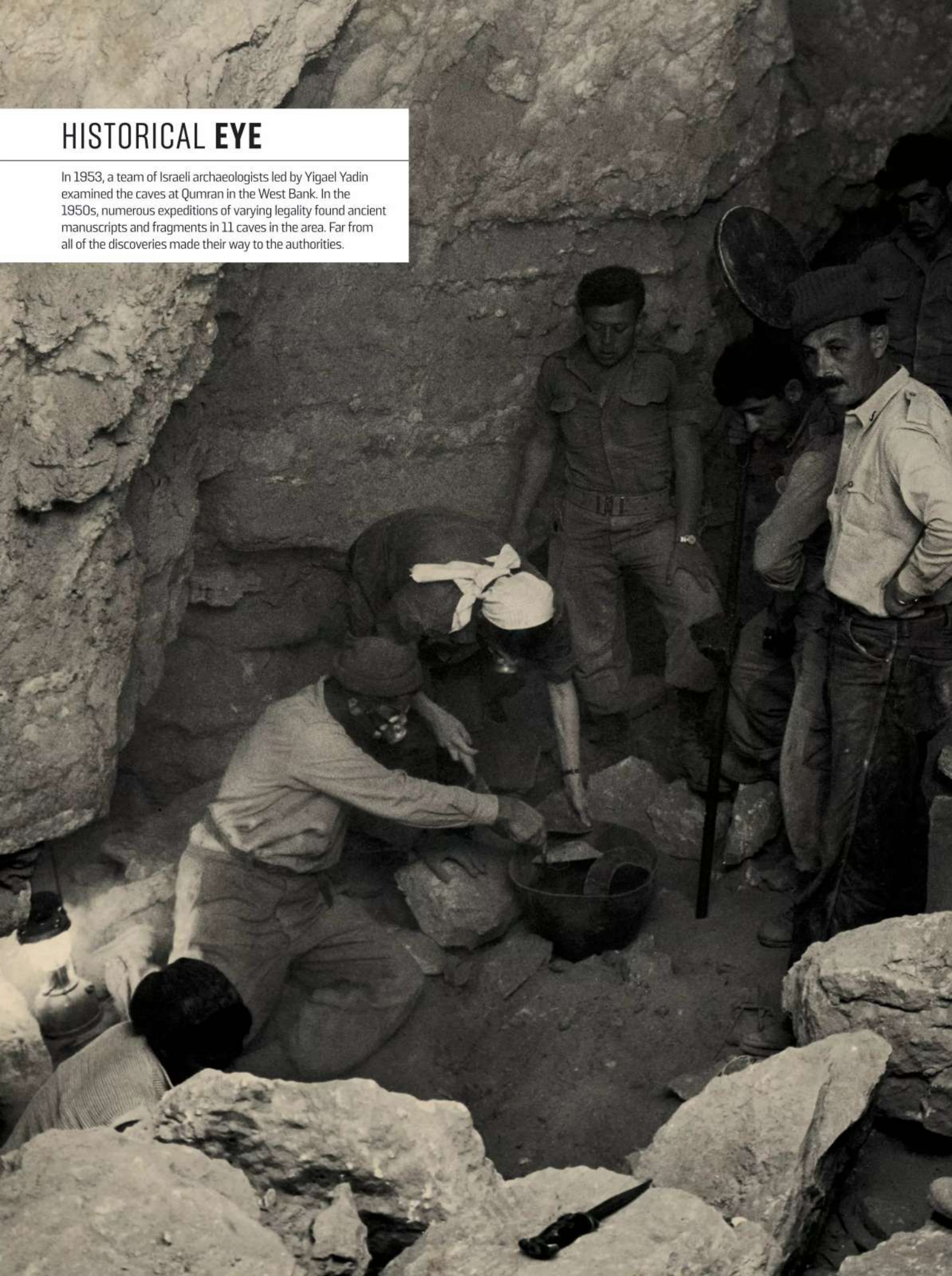
” Hidden in the semi-darkness were as many as ten ancient, sealed clay pots and a collection of shards. One pot turned out to contain three yellowed manuscripts.

THE MONASTERY OF SAINT MARK

is located in Jerusalem. At over 1,400 years old, the cloister is the seat of the Syriac Orthodox archbishop.

HISTORICAL EYE

In 1953, a team of Israeli archaeologists led by Yigael Yadin examined the caves at Qumran in the West Bank. In the 1950s, numerous expeditions of varying legality found ancient manuscripts and fragments in 11 caves in the area. Far from all of the discoveries made their way to the authorities.



In 1948, the US archaeologist and biblical scholar John C Trever examined the ancient Hebrew manuscripts found in the caves.

Trever was the first to study – and photograph – the Dead Sea Scrolls.



the Dead Sea Scrolls, and he decided to photograph them – which proved to be quite a challenge.

The atmosphere in Jerusalem was tense, and it was impossible to find usable film. The British were about to hand over their Palestinian mandate to the UN, which had passed a resolution to divide the Holy Land into an Arab state, a Jewish state and an international zone.

The mountain capital echoed daily with sirens, bombings and clashes between Arabs and Jews.

Nevertheless, the American embarked on a week-long search of photographic shops in the old quarter of the battered city, eventually securing a large collection of valuable photographs of the ancient texts, which he would later work on.

Bedouins and archaeologists in a race

Throughout the 1950s, the area where the scrolls were found became the centre of a ruthless race between Bedouins, archaeologists and treasure hunters. The many expeditions uncovered a total of 11 caves containing thousands of manuscripts and fragments of scrolls, but the chaos surrounding their discovery made proper documentation and mapping of the finds impossible. As a result, some of the material has probably never come into the possession of the authorities.

In the early 1950s, the archaeologist and priest Roland de Vaux of the Ecole Biblique, a French Catholic school of theology and archaeology in Jerusalem, was entrusted with the task of sorting through the enormous amount of material unearthed by the archaeologists.

The Jordanian authorities in charge of the site at the time asked de Vaux to put together a team of researchers to study and translate the many fragments of text and scrolls that were gradually being collected in the basement of the Palestinian Archaeological Museum in Jerusalem. The majority of the scrolls were made from carefully stitched pieces of animal skin parchment, while some texts were written on papyrus. The language was mainly Hebrew, with about a fifth of the texts having been written in Aramaic and a few in Greek.

The three languages testify to the fact that, in the centuries surrounding the birth of Christ, ➤



French priest Roland de Vaux (left) led a series of excavations in the Qumran caves in the 1950s. Among other artefacts, his team found the Copper Scroll, which describes a number of great treasures hidden in the Holy Land.

Judaism was a trilingual culture. Hebrew was used in everyday life and as the language of choice for sacred writings, while Aramaic was the language of international trade – a relic of the Persian Empire’s heyday. Since Alexander the Great’s conquest of the region in the fourth century BC, Greek had gained popularity, especially among the upper classes. But before the excitement of the finds could really take hold, a burning question had to be answered: were the manuscripts genuine?

Scholars, such as Trever, who studied the scrolls, were convinced that the manuscripts dated from around the time of Christ’s birth, but doubts lingered. Archaeologists and biblical scholars recalled with horror the story of how, in 1893, a Jerusalem antiquities dealer had excitedly displayed an early and previously unknown edition of Deuteronomy. The text, printed on skins, was even exhibited in the British Museum before a number of Europe’s leading biblical scholars, after intensive investigation, declared it to be a cunning forgery. To prevent the risk of being deceived

To prevent the risk of being deceived for a second time, the scrolls were subjected to a series of thorough examinations.

for second time, the scrolls were subjected to a series of thorough examinations.

Most crucial was the dating using carbon-14 analysis. In 1950, researchers used the method to examine a piece of linen they had found in one of the caves. The analysis was carried out by Willard Libby himself, the US chemist who had developed the dating technique. The result revealed that the garment dated from 33 BC, with a 200-year margin of error on either side.

Palaeographers studied the writing, too, and by analysing the size and shape of the characters and the direction of the lines of text, then comparing the observations with other writings, the researchers were able to roughly date the find.

After comparing the texts with the Nash Papyrus and Roman inscriptions, among

others, the scholars dated the scrolls to the period from 250 BC to 135 AD.

The dating reassured the researchers. The result convinced them that the scrolls were from antiquity and not the Middle Ages, as feared. In the late 1950s, using more precise methods, academics established that the 511 or so texts from which they had so far identified fragments had been produced between around 150 BC and 70 AD. The scrolls were therefore unique among ancient texts in that they dated from when Christ was alive.

Religious textbook

The many text fragments and scrolls were stored in the basement of the Palestinian Archaeological Museum in Jerusalem. Here, researchers were faced with the next puzzle: what did the texts contain and who had written them?

The task of deciphering and translating the scrolls fell to a team of researchers assembled under archaeologist and priest Roland de Vaux.

A large number of the scrolls – about a third of them – turned out to be known texts from ➤

Continued on page 80



How are the Dead Sea Scrolls analysed and preserved?

Technology from one of NASA's space telescopes and high-resolution digital scans are some of the tools researchers use to try to read the parts of the Dead Sea Scrolls that are badly damaged. Meanwhile, other scientists are working with tweezers and computer software to preserve for posterity the scrolls that were found in reasonably good condition.

ANALYSIS WITH SPACE TELESCOPE

Astrophysicists reveal text

Much of the work to decode the secrets of the Dead Sea Scrolls involves examining and piecing together the texts' contents. In the 70 years or so since the discovery of the scrolls, this work has mainly been

in the hands of biblical historians and palaeographers. But in recent years, they have been helped by computer experts and NASA astrophysicists to read writing that has become obscured over time.

WHAT DOES THE FUTURE HOLD?

Among other things, the technology has revealed a hidden snippet that researchers can't make fit into any of the known manuscripts, indicating that more undiscovered scrolls probably exist.

Text obscured over time

1 Some text on the scrolls is impossible to read with the naked eye as the parchment has darkened over time.



Telescope tech discovers words

2 Using the same type of camera sensor that the Hubble Space Telescope uses, NASA has found previously invisible text on 82 small pieces.



The puzzle begins

3 After the text is revealed, a major analysis effort begins. The writing and the shape of the fragment are carefully examined.



New piece is added to scroll

4 From the text and the shape of the piece, researchers can find the place where the fragment fits on the broken scrolls. In this way, NASA technology is helping to make the Dead Sea Scrolls more complete.

Scanner unrolls the scrolls

Scientists can use modern scanning technology to piece together the text on a rolled-up, darkened parchment scroll without having to open it. The method is particularly useful for old and fragile scrolls. The new technology is called virtual unwrapping and

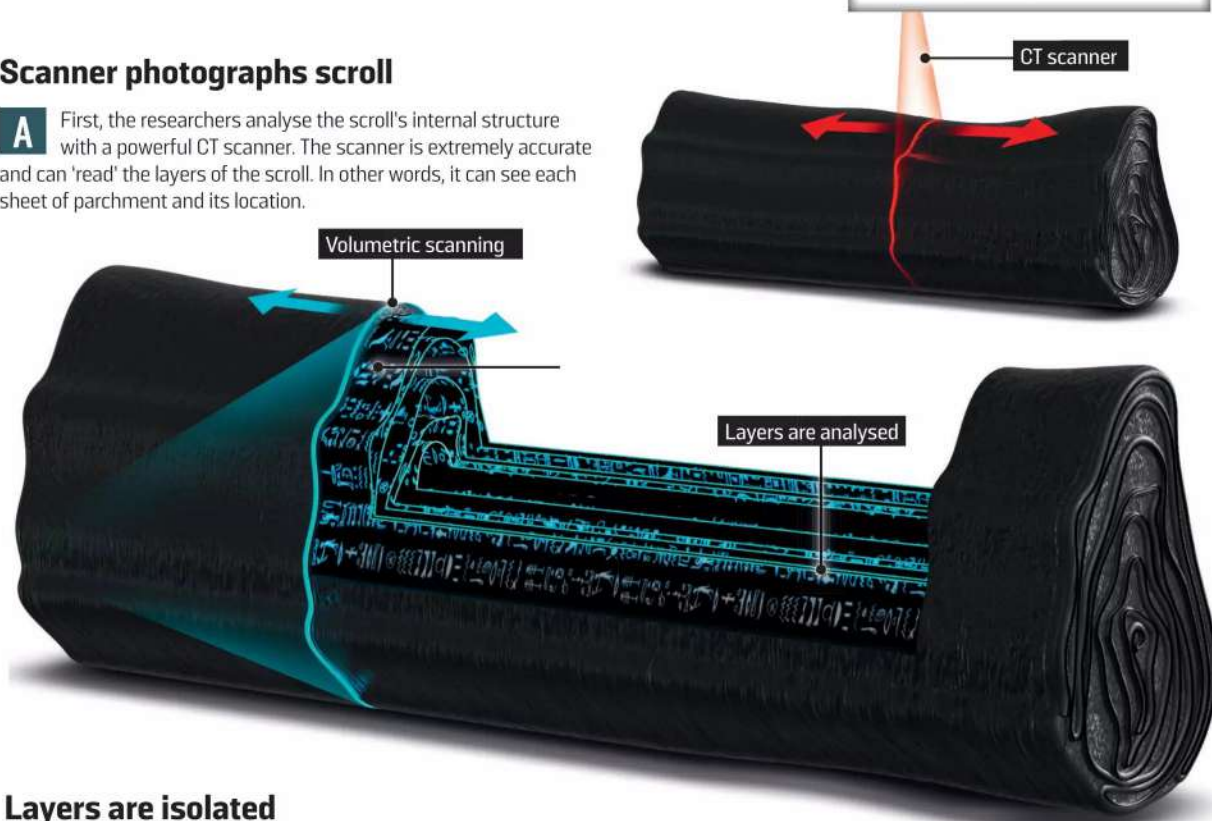
it works by scanning a rolled-up document twice. Computers can then find the layers of the scroll and analyse pressure points made by the writer, presenting a photograph of the scroll's pages and text without it ever having been opened.

WHAT DOES THE FUTURE HOLD?

The first scroll to be digitally unrolled was the third or fourth-century En-Gedi scroll, which was discovered in Israel near the Dead Sea. The scroll has been analysed by Israeli researchers, who now hope the same technology can be applied to the most fragile and still-furled Dead Sea Scrolls.

Scanner photographs scroll

A First, the researchers analyse the scroll's internal structure with a powerful CT scanner. The scanner is extremely accurate and can 'read' the layers of the scroll. In other words, it can see each sheet of parchment and its location.



Layers are isolated

B From the CT scan, software is used to form a 3D model of the scroll's structure, divided into segments that the computer can virtually roll out. The computer's isolation of the

segments is crucial because another scan will subsequently reveal what is written on each segment. In this way, the scroll is virtually unfurled page by page.

Text is read by the scanner

C The final scan reveals places where the parchment has been exposed to pressure. The pressure was made by the writer's pen, and by analysing it, the computer program can form a complete digital image of the scroll, including the text.



Dead Sea Scrolls go digital

The dry, barren climate of the Judean desert 400 metres below sea level and the stable temperature and humidity inside the caves are probably why the Dead Sea Scrolls have survived for two millennia. After their discovery in the 1940s, their treatment rapidly deteriorated the scrolls. As a result,

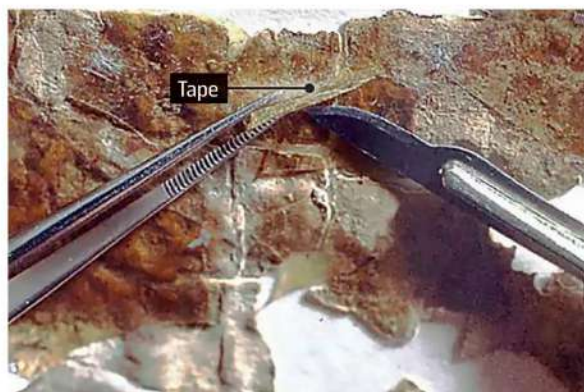
they are in danger of decaying and scientists are constantly trying to find perfect ways to preserve them. While researchers wait for technological breakthroughs, they are digitising the Dead Sea Scrolls, then storing the fragile texts in a laboratory replica of the climate in the Qumran caves.

WHAT DOES THE FUTURE HOLD?

Many of the thousands of fragments of the Dead Sea Scrolls are stored like jigsaw pieces in hermetically sealed boxes. For years, they have been stowed away in the expectation that technology will one day become advanced enough to pinpoint the location of individual fragments.

Tape must be removed by hand

A After the discovery in the 1940s, the scrolls were put together with tape and squeezed between pieces of glass, which caused the pieces of parchment to darken and stick together. Therefore, one important job is to remove the old pieces of tape.



Cave's climate is mimicked

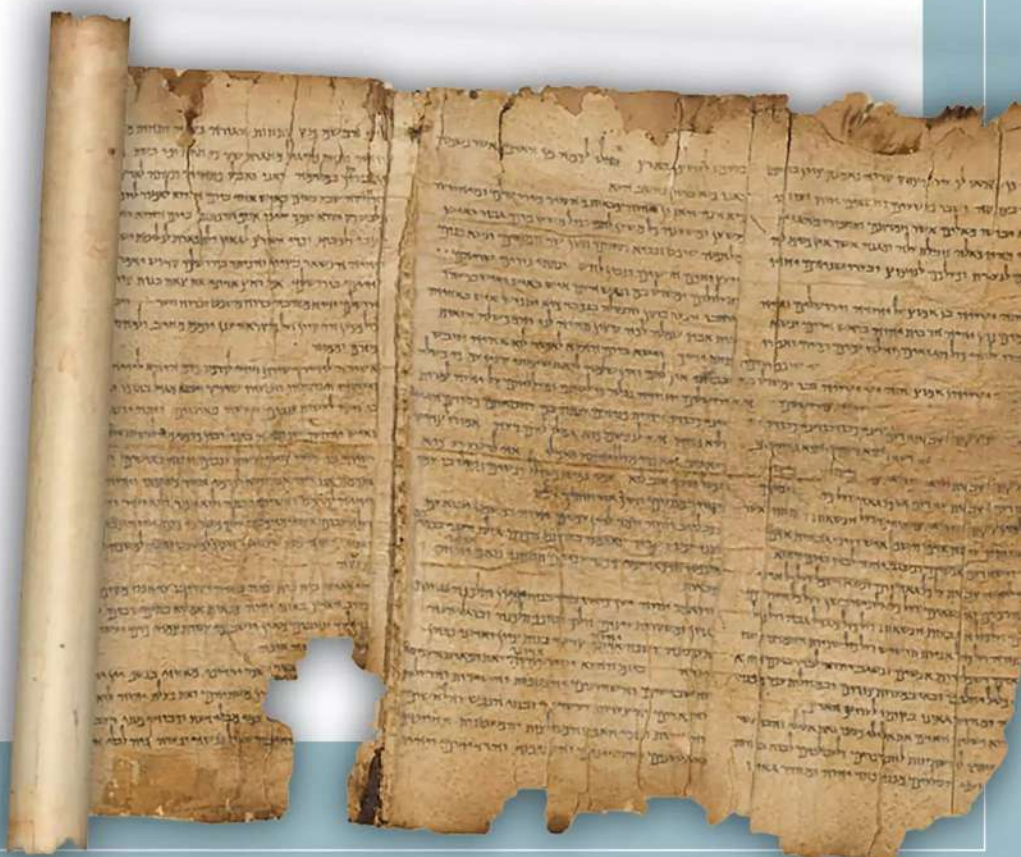
B Since 1991, the majority of the Dead Sea Scroll fragments have been stored in a temperature-controlled lab that mimics the environment in the caves. The fragments are kept out of the light and pressed between pieces of acid-free cardboard.



Digitisation opens up scrolls to all

C Eighty percent of the scrolls are made of animal skin and 20 percent of papyrus. No matter how carefully they are handled and stored, the materials will eventually perish. The latest step in the conservation process is to create a digital archive of all the images of the Dead Sea Scrolls, with free access for all. The digital archive, which opened in 2011, also contains translations and inventories of the condition of each fragment.

The Dead Sea Scrolls are now online and can be studied at <http://dss.collections.imj.org.il>.





the Old Testament, and thus the oldest written biblical texts that academia had ever had the chance to study.

The ancient manuscripts showed that later European translations of the Bible were astonishingly accurate and that the Scriptures had not changed dramatically since antiquity. In addition to the Old Testament texts, the scrolls were also found to contain entirely new material, most of which the scholars categorised as sectarian.

These previously unknown writings discussed the ideal structure of society and appear to have served as the religious foundation for a

fundamentalist cult that had left the Jewish capital, Jerusalem, in protest against the city's powerful high priests.

Together, the scrolls provide an incredibly detailed and vivid snapshot of the last days of the Kingdom of Judah before its collapse and disintegration in the first and second centuries AD: a nation in disarray, marked by violent internal religious and political divisions.

One of the scrolls stands out, however, and perhaps more than any other it has sparked speculation among both laymen and researchers – and tempted treasure hunters. The Copper Scroll was found in two pieces by Roland de Vaux in cave number three in 1952, but it was badly corroded and too fragile to be unrolled and read. It was only three and a half years later that it became partially legible, when researchers at Manchester College of Science and Technology divided it into 23 pieces by peeling away layer upon layer of the rolled-up metal with a specialised circular saw.

Apart from a few records of financial transactions also found in the caves, the Copper Scroll is the only Dead Sea Scroll not to contain hymns, prophecies, edicts or other religious text. As the name suggests, the Copper Scroll is further distinguished by being embossed on metal, rather than written on animal skin. The text lists 64 secret locations where up to 100 tonnes of valuables in the form of gold, silver, coins and religious paraphernalia were hidden.

Archaeologists' tool | Trowel

PRECISION

The trowel is used during excavations to carefully loosen and scrape soil away from finds.





The Isaiah Scroll is the best preserved of all the scrolls. It was written in the second century BC and can be seen today in the Israel Museum in Jerusalem.

The question of who might have written the scrolls was more difficult to answer. However, the text in some of the scrolls gave the researchers a clue. In what the scholars called the sectarian scrolls, the authors had set down a collection of religious rules for a Jewish cult.

Authors remain a mystery

From the text, the researchers were able to deduce that the cult lived in isolation, that its members lived ascetically and strictly religiously, and that they shared everything. However, the description could fit many of the cults that flourished around the time of Christ's birth. Various schools of Judaism existed at that point, many of which cut themselves off from the world to await the Messiah, the King and Saviour of the Jews.

Despite the multiplicity of sects at the time, some scholars believe that the authors of the scriptures were the **Essenes**, a cult of strictly ascetic Jews who left Jerusalem in the second century BC in order to the appointment to a new high priest. They moved into the desert to live in isolation from the outside world. The sect is described in detail by ancient historians such as Pliny the Elder and Flavius Josephus, and was known to share everything, from meals to money.

The Essenes bathed frequently, worked hard and generally strove to lead pious and pure lives. Roland de Vaux believed that the Essenes had settled in Qumran – a small settlement near the caves where the scrolls were found. When de Vaux

excavated Qumran and found potsherds, coins and other objects similar to those found in the caves, he was convinced that the inhabitants were also the authors of the scrolls.

The life of the Essenes is known primarily from descriptions by the Jewish historian Josephus. In AD 73–75, he referred to them as one of three schools of Jewish philosophy (the others being the Pharisees and Sadducees).

Around the same time, the Roman historian and explorer Pliny the Elder tells us that the Essenes lived in the desert near the north-western shore of the Dead Sea – the same area as Qumran.

The Essenes regarded city life as incredibly sinful. Instead, they practised a simple and strictly religious way of life in small towns and settlements around Judea, where they dressed in white and renounced virtually all earthly pleasures.

The members of the sect were careful not to swear, they bathed before meals and after going to the toilet, and always kept the Sabbath holy, which included not answering calls of nature. The majority of the roughly 4,000 Essenes, including the sect in Qumran, were men who refused to marry because they considered women sinful. The Dead Sea Scrolls describe how the sect was led by a religious figure called the "Teacher of Righteousness", who divided humanity into good and evil. The members of the sect saw themselves as "Sons of Light" and expected on the final day to fight victoriously against the "Sons of Darkness" – which was virtually everyone else. ➤

THE ESSENES

were followers of a school of Judaism that flourished in the period from the second century BC until the first century AD.

Waiting for the Day of Judgment, the holy men lived secluded in the desert as a self-sufficient working collective. Each day began early with communal prayer, before the men set to work tending the sect's sheep, beehives and barley fields.

Priests wrote in code

Apart from the texts on the scrolls, there are scant sources about the early Jewish sect. However, the Essenes' writings explain that, despite their strict rules, they were relatively progressive.

They believed in equality, and therefore did not keep slaves, and they were also pacifists and showed great tolerance towards other religions.

The researchers theorised that during the Jewish revolt of AD 66–70, the inhabitants of Qumran hurriedly moved their religious library to safety in the nearby caves before the Romans razed the village – an event historians know took place in AD 68.

De Vaux's hypotheses, however, were unfortunately inconclusive, because other discoveries seemed to indicate that the Essenes were not necessarily the scrolls' authors. On Mount Zion in Jerusalem, archaeologists found a 2,000-year-old chalice inscribed with "Lord, I have returned", seemingly written in the same code as that used on the Dead Sea Scrolls. Some scholars believe that Jewish priests wrote in code to hide their messages from the uninitiated. If the inscription on the chalice found near Jerusalem was indeed written in the same code as that used on the Dead Sea Scrolls, the discovery could fundamentally change our knowledge of the

scrolls. If the theory holds, the authors may in fact have been priests from the Temple in Jerusalem who, while in exile, continued to write in code as they were accustomed to doing in Jerusalem. It is even possible that some of the writings were written in Jerusalem and then brought to Qumran.

"It dramatically changes our understanding of the Dead Sea Scrolls if we see them as documents produced by priests," says US archaeologist Robert Cargill. And the theory that the

scrolls were brought from Jerusalem to Qumran for safekeeping is quite plausible.

Judea was a place of extreme unrest during the first century AD. In AD 66, the Jews rebelled against the Romans, who were occupying Palestine at the time. The rebellion culminated in the burning of the Temple and much of Jerusalem by the Romans in AD 70. According to the contemporary historian Flavius Josephus, in that year the last rebels fled into the sewers in an attempt escape the burning city.

"Those in the sewers were ferreted out, the ground was torn up, and all who were trapped were killed," Flavius Josephus says of the Romans' hunt for the fleeing Israelites. So, it was with great excitement that a team of Israeli archaeologists discovered an ancient drainage system under Jerusalem in 2007.

The archaeologists' discovery of objects such as pottery and coins in the sewers from the first century AD supported Josephus's account of the Jews' hurried escape beneath the burning city. Some of the escapees may have taken ➤

On Mount Zion in Jerusalem, archaeologists found a 2,000-year-old chalice inscribed with "Lord, I have returned".

Scrolls contain treasure maps and Bible quotations



OLD TESTAMENT WRITINGS

The Dead Sea Scrolls contain copies of all the books of the Old Testament except the Book of Esther. For example, the scrolls contain as many as 39 copies of the Book of Psalms. In total, 225 biblical texts make up 22 percent of the Dead Sea Scrolls.



TESTIMONY TO EVERYDAY LIFE

The texts contain what has been called the Community Rule because it describes the way of life of the scroll makers, the Qumran community. It reveals how the group was led and how daily life was conducted with religious prayers and the study of holy scriptures.



OTHER JEWISH SCRIPTURES

The writings also include texts written by Jews outside the Qumran community and some are older than the group. Among the scriptures are Israelite religious texts that are not recognised by rabbis and therefore not included in the Torah.



NON-LITERARY WRITINGS

Approximately 30 of the Dead Sea Scrolls contain non-literary writings, such as contracts and lists. The most famous scroll of all is the Copper Scroll, which contains a list of treasures, supposedly hidden around the Holy Land.

The Qumran caves are located in the West Bank part of the Judean Desert.

Ninety percent of the texts were found in cave number four.



scrolls from the Temple with them, the theory goes, and this argument was strengthened when archaeologists discovered that the sewers ended in the Kidron Valley, from where there is quick and easy access to Qumran.

To get closer to the truth about the origin of the scrolls, archaeologists from the Hebrew University of Jerusalem conducted a chemical analysis of some of the jars from the caves around Qumran. The research revealed that only half of the jars containing Dead Sea Scrolls were made from clay found in the area.

“Since there is no clay on Earth with the exact [same] chemical composition – it is like DNA – you can point to a specific area and say this pottery was made here, that pottery was made over here,” explains Jan Gunneweg of the Hebrew University about the conclusion that the jars containing the scrolls were not made only at Qumran but originated in many different places. It is likely, however, that some of the scrolls were written in the Qumran area and not in Jerusalem.

In 2010, a team of Italian researchers analysed the ink used to write the Temple Scroll – the longest of the Dead Sea Scrolls. The ink, the

study found, had the same high bromine content as the waters of the Dead Sea. Based on the results, the archaeologists concluded that at least some of the scrolls were written in Qumran, not anywhere else – including Jerusalem.

“The authors of the scrolls, the Qumran sect, belonged to the earliest exiled Christian communities.

Christians on the run

While academics know a little about where the scrolls originated, the interpretation of the texts is subject to much more conjecture. One of the most widely held theories is that the authors of the scrolls,

the Qumran sect, belonged to the earliest exiled Christian communities. From the texts, historians can indeed see that the lifestyle of the Qumran sect has many similarities with that of the first Christian groups. These similarities have given rise to speculation about the scrolls’ possible connection with Jesus and Christianity. But the work of interpreting the ancient manuscripts is incredibly complex. Many of the fragments contain only a few clear words, so scholars often have to rely on guesswork when trying to decode the scrolls’ content.

This uncertainty prompted one of Roland de Vaux’s collaborators, British scholar John

Insight | Important writings

The diversity of the scrolls can be seen in the four writings below. The texts are extracts from key parts of the Dead Sea Scrolls and contain everything from war manuals to predictions about the future.



THE TEMPLE SCROLL is the longest of the Dead Sea Scrolls. It describes in detail a temple that was never built and the rituals and sacrificial methods to be used in the holy building.



THE WAR SCROLL is a manual for warfare and military organisation. The scroll was one of the original finds in cave one and was probably written during the time when Judea was occupied by the Romans.

Allegro, to claim that the Catholic Church might have been trying to hide the truth about the Dead Sea Scrolls.

Allegro was the first to launch the theory that the scrolls contained texts whose content could be damaging to the Church's authority. The hypothesis was fuelled not least by the fact that Catholic archaeologist Roland de Vaux's research team had a monopoly on access to the scrolls, and that the time taken between publishing each translation was growing longer and longer. Throughout the 1950s, John Allegro's distrust of the research team grew dramatically. Most of the archaeologists and historians involved were devout Catholics – a fact that only fuelled Allegro's suspicions.

"I am convinced that if something does turn up which affects Roman Catholic dogma, the world will never see it," John Allegro wrote to a colleague. Others have since been inspired by the British scholar's suspicions.

In the 1991 bestseller *The Dead Sea Scrolls Deception*, Michael Baigent and Richard Leigh singled out Cardinal Joseph Ratzinger, later Pope Benedict XVI, as the man who for years allegedly orchestrated the Catholic Church's efforts to conceal sacred writings and historical information that was "inimical to Church doctrine".

Church hid the truth

Just as controversial as Allegro's work was author Dan Brown's book *The Da Vinci Code*, published in

Archaeologists' tool | Brush

FINISHING
Archaeologists carefully remove the last pieces of soil from around new finds with a brush.

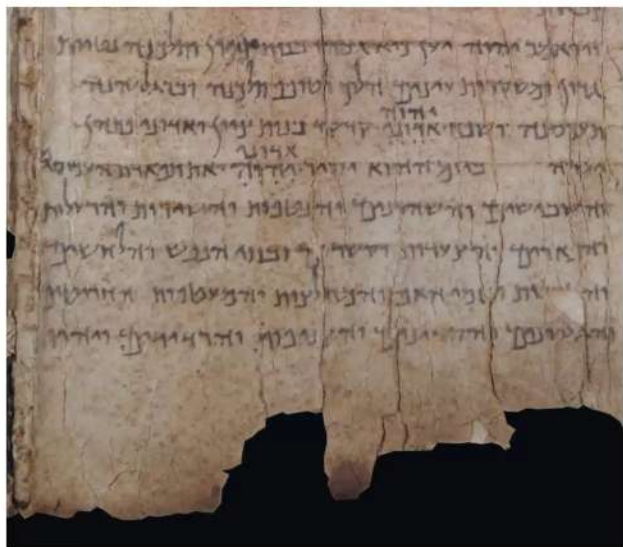


2003. In the novel, Brown put forward the theory that the Vatican is hiding the truth about Jesus and the Bible. The book portrays Jesus Christ as a descendant of King David and thus a real, earthly king. He escaped crucifixion alive and married Mary Magdalene, who fled to France during the persecution of Jews in the Holy Land. There she gave birth to Christ's child. Some French families, the novel says, therefore carry on the royal blood of Christ.

Deeming this knowledge a threat, Brown's book continues, the Vatican burned the Gospels that told the story and replaced them with new – false – scriptures that tell the story we know of Christ's suffering, death and resurrection.

The book is pure fiction, of course, and Dan Brown insists it was never intended to be anything other than a good story. However, ➤

Continued on page 88



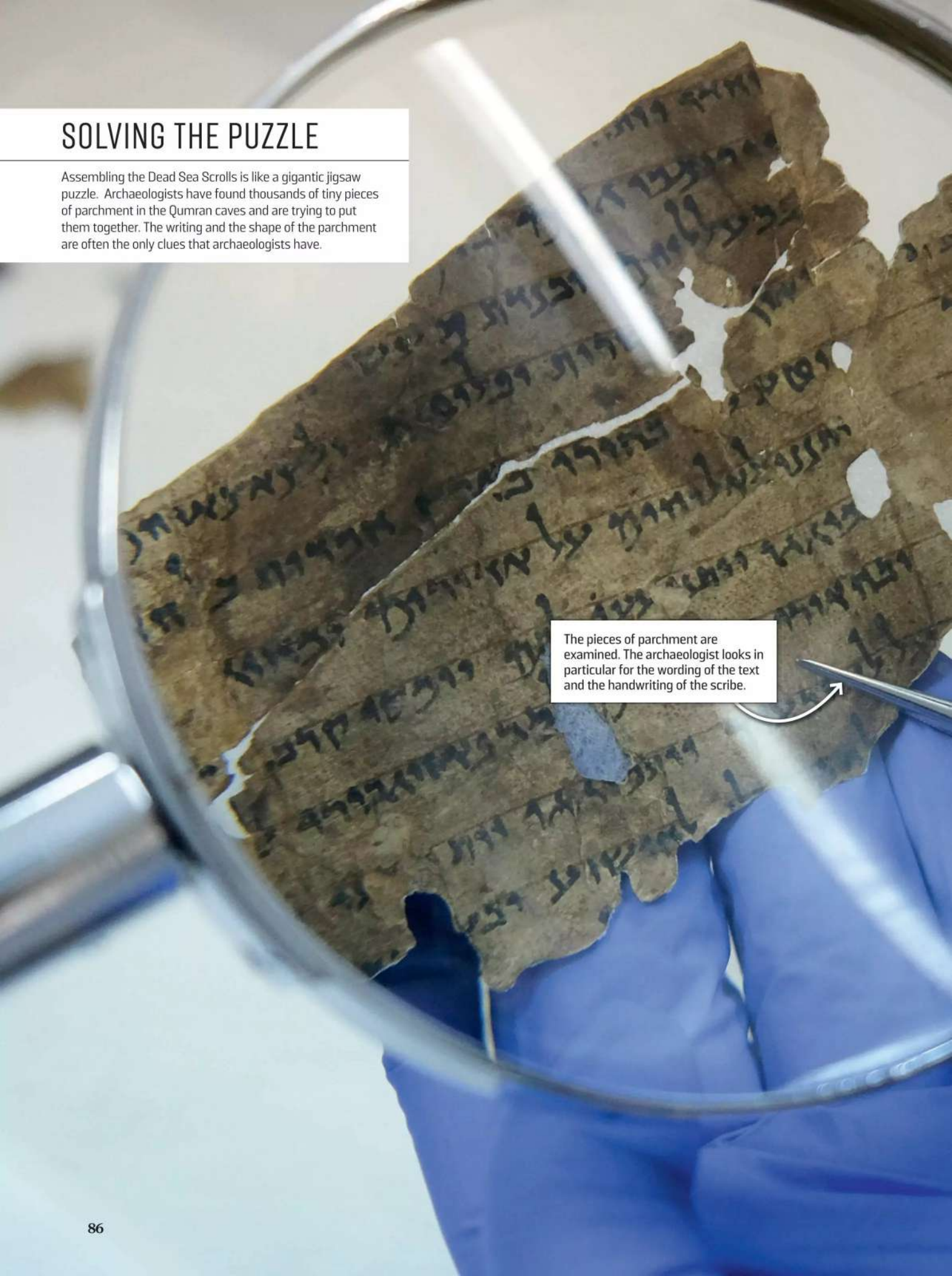
THE ISAIAH SCROLL is a copy of the Bible's Book of Isaiah and the oldest known text containing the story. The scroll is one of the original discoveries and measures 7.34 metres.



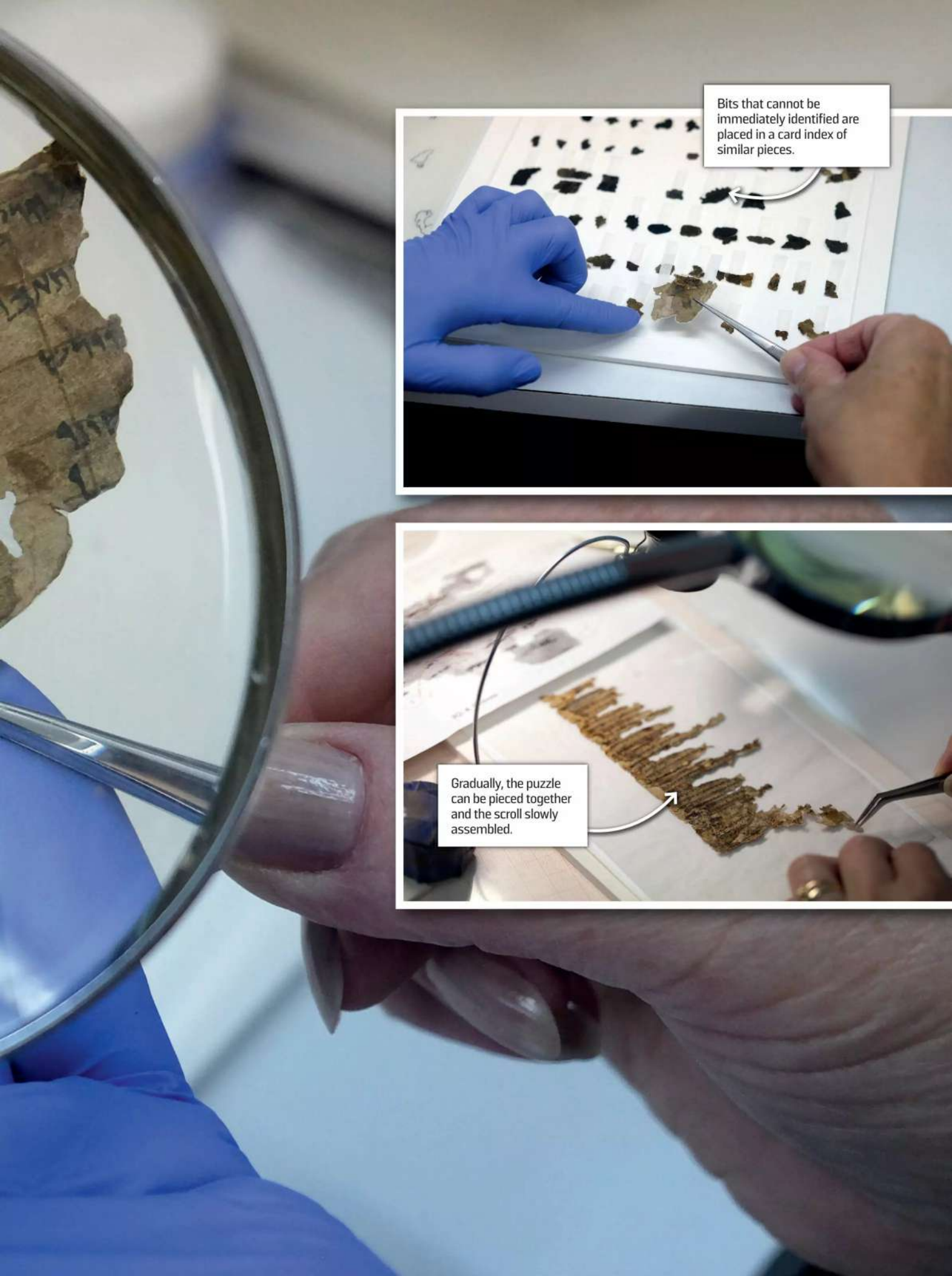
THE TESTIMONIA has not yet been definitively interpreted. It was written in the first century BC and describes three figures who would be central to the future of the Jews: a prophet, a messiah and a religious teacher.

SOLVING THE PUZZLE

Assembling the Dead Sea Scrolls is like a gigantic jigsaw puzzle. Archaeologists have found thousands of tiny pieces of parchment in the Qumran caves and are trying to put them together. The writing and the shape of the parchment are often the only clues that archaeologists have.



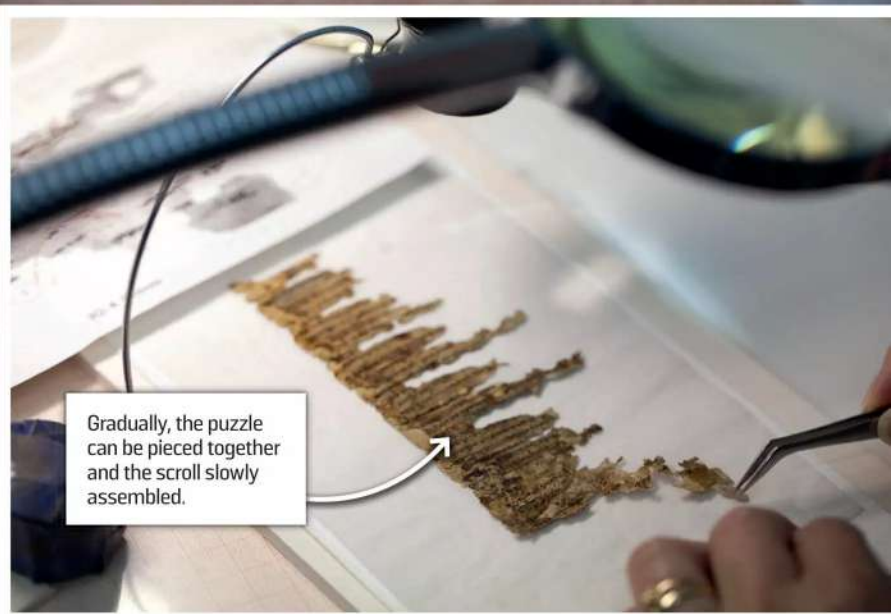
The pieces of parchment are examined. The archaeologist looks in particular for the wording of the text and the handwriting of the scribe.



Bits that cannot be immediately identified are placed in a card index of similar pieces.



Gradually, the puzzle can be pieced together and the scroll slowly assembled.





Archaeologists are still digging in the area around the Qumran caves. Periodically, pottery shards appear as evidence of past habitation, but no new writings have been found since the excavation of cave 11 in 1956.

the story attracted considerable interest, not least when the book was made into a film in 2006. Scholars now agree that the book, and critics of mainstream theories about the Dead Sea Scrolls, have a point – in the sense that the Bible’s writings were carefully selected and that the leaders of the Church deliberately forbade any controversial writings from being included in the holy book. The exact contents of the Bible were determined in AD 367, when Bishop Athanasius circulated a list to all the churches and monasteries under his authority. It laid down the sacred writings that church leaders had selected over the centuries as useful in preaching. All other texts were forbidden.

Among writings found at Nag Hammadi in Egypt in 1945, possibly buried in response to Athanasius’s edict, was one called the **Gospel of Thomas**. The manuscript, which scholars have dated to around the year AD 50, is considered one of the earliest gospels. Unlike the Gospels we know from the New Testament, the Gospel of Thomas contains no account of the life, death and resurrection of Christ, but only a collection of 114 quotations attributed to him. Seventy-nine of these are also found in the other

Gospels, while 45 are unique to the Gospel of Thomas. The text portrays Christ as a wise man and not as a deity. The Church therefore forbade the book’s inclusion in the Bible.

Many other writings were banned because they portrayed Christ as a Jew, for example, or because they contained elements that emphasised the Christian saviour’s human traits.

The Bible is unlikely to ever be changed, but archaeologists hope that there are caves and other hidden locations that contain more banned or forgotten writings. Academics are also constantly discovering new things about the texts that have already been unearthed. This is also true of the Dead Sea Scrolls, which have not yet been definitively interpreted. Since Roland de Vaux’s research team painstakingly examined the scrolls by reading the characters

line by line, science has moved forward. In the mid-1990s, for example, researchers began using DNA analysis of animal skins to determine how to reassemble the many parchment fragments. Researchers also examined the scrolls using a special photographic technique developed by the US space agency, NASA. The technique, called multispectral photography, uses light of a very specific wavelength to capture details that were previously impossible to see or reproduce.

Many of the scrolls are now available via a digital library on the internet for anyone to study closely, and more manuscripts are likely to be added in the coming years. In early 2017, archaeologists from the Hebrew University made a startling discovery in the desert region of Qumran in the West Bank. They found shards of pottery in a cave along with remnants of ancient parchment.

It was similar to the parchment upon which the known Dead Sea Scrolls were written. Academics believe that the cave housed manuscripts that were later stolen by thieves. The discovery therefore opens up the possibility of the existence of more scrolls and – perhaps – a new clue to the mysteries of the Bible. ■

” In the mid-1990s, researchers began using DNA analysis of animal skins to determine how to reassemble the many parchment fragments.

THE GOSPEL OF THOMAS

is an early Christian account of Christ found in December 1945 by a local farmer near Nag Hammadi in Egypt.

The texts do not tell us about Jesus Christ

- The Dead Sea Scrolls **were written in the centuries around Christ's birth.**
- The manuscripts tell of **life and faith among Palestinian Jews** at the time.
- The scrolls reveal **nothing about Christ nor about Christianity.**
- **The writings were highly valued by their owners** at the time and were therefore well preserved.
- The text on the scrolls **reproduces part of the Old Testament scriptures.**

981

manuscripts make up the Dead Sea Scrolls. The texts are a unique source of knowledge about life in Judea before the birth of Christ.

? WE NEED ANSWERS

Are there more scrolls?

1 Based on recent discoveries of parchment in a cave near Qumran, researchers believe that more scrolls lie hidden in the area and will turn up in the future. At the same time, researchers are sceptical about newly discovered scrolls. From around 2002, the market has been flooded with fragments being traded privately, and academics warn that many of the pieces are probably fakes. The seriousness of the warning

is borne out by the fact that in late 2018, the Museum of the Bible in Washington DC had to remove five fragments from display when the manuscripts turned out to be forgeries. The revelation came after investigations at the renowned Bundesanstalt für Materialforschung und -prüfung (BAM) in Berlin. Årstein Justnes, professor of biblical studies at the University of Agder in Norway, estimates that up to 90 percent of the 70 new fragments may be fakes.

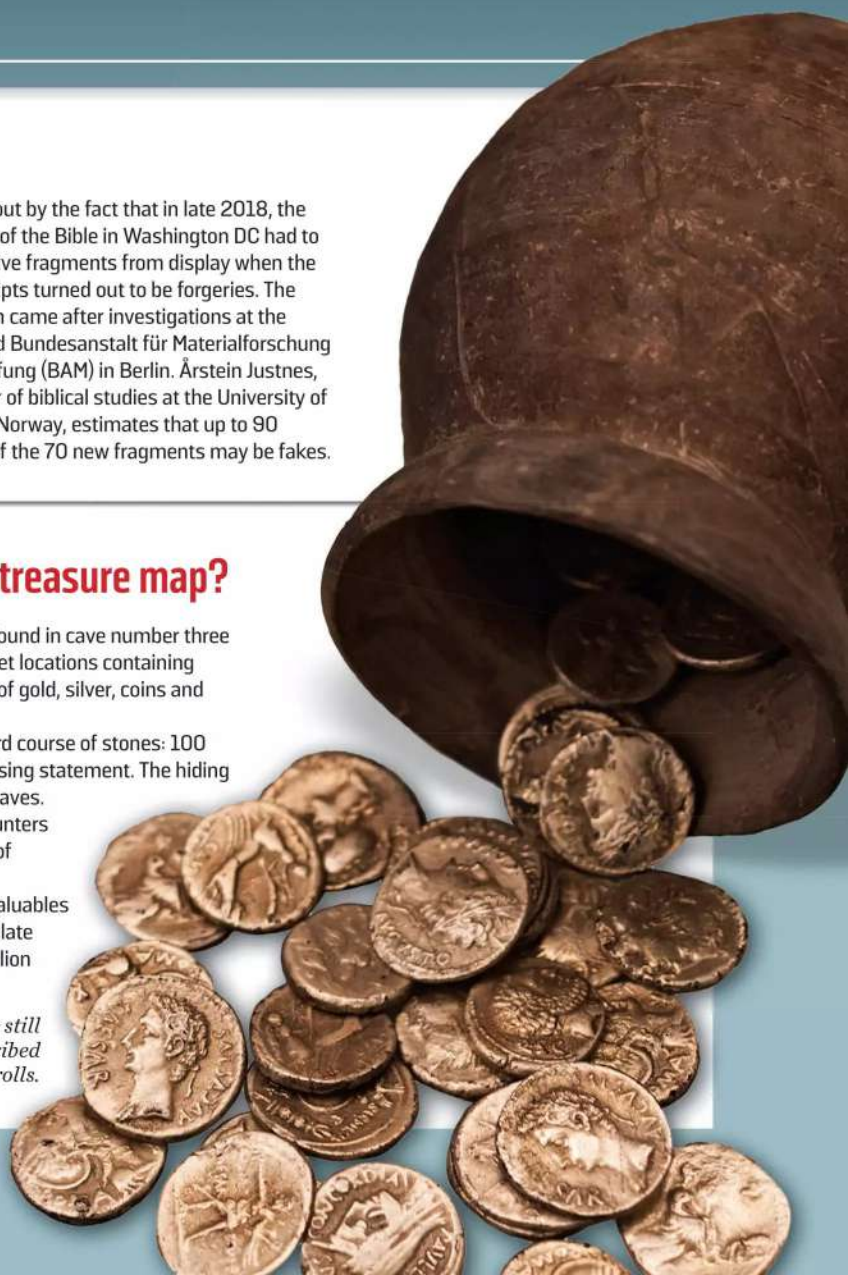
Do the Dead Sea Scrolls contain a treasure map?

2 The Copper Scroll, which Roland de Vaux found in cave number three in 1952, contains a detailed list of 64 secret locations containing up to 100 tonnes of valuables in the form of gold, silver, coins and religious paraphernalia.

"In the sepulchral monument, in the third course of stones: 100 bars of gold," reads one cryptic and tantalising statement. The hiding places were apparently wells, water tanks and underground caves.

The list of riches has prompted several aspiring treasure hunters over the years to brave the desert's scorching heat in search of the precious items, but so far none has succeeded in finding anything. Many experts believe that the scroll is a record of valuables that belonged to the Temple in Jerusalem. Researchers speculate that the riches may have been hidden during the Jewish rebellion of AD 66–70 but no one is certain.

Treasure hunters are still hunting for the riches described in the Dead Sea Scrolls.





*On each day of the Hanukkah festival,
Jews light a new candle in the nine-
branched menorah candlestick.*

JEWISH RITUALS

Circumcision, a ban on pork and strict rules on food preparation, Judaism's rituals are carefully laid out in the Bible. And perhaps with good reason. For in ancient times, pork could be full of bacteria, shellfish may have been poisonous, and circumcision helped to prevent infections.

Every year, as winter darkness settles over the northern hemisphere, Jewish families and communities around the world come together to celebrate Hanukkah. Rabbis and family leaders carefully light the large nine-branched candlestick called the *menorah* (Hebrew for lamp stand). The ritual follows a strict procedure: the candles are always lit from left to right, and the act is accompanied by two ritual prayers. The candle in the centre of the pole is lit first, followed on subsequent days by the candles in the eight arms that spread out to each side. Each candle – one on each evening throughout the eight days of the holiday – is lit with fire from the flame in the centre, so that all nine candles are shining on the last day of the feast.

This is just one of Judaism's many established ceremonies. For practising Jews, the days of the year are filled with set traditions and rituals. In addition to those associated with festivals such as Hanukkah, Jews must observe the 613 commandments and edicts recorded in the holy scripture, the Torah. These set out rules for almost all of life's events from cradle to grave. Among the many commandments are regulations on butchery, food preparation and

eating, as well as rules on the circumcision of male children. A rabbi in Israel has calculated that an uninitiated person would need to spend a full 480 hours learning Judaism's most important basic concepts and its many laws. But what lies behind its intricate rules and rituals? How and when did they come about, and why are these traditions so important that observant Jews follow the centuries-old commandments to this day?

Hanukkah celebrates ancient victory

With the lighting of the nine-branched Hanukkah candlestick on the 25th of **Kislev** – the ninth month of the Jewish calendar – Jews celebrate the fact that in 164 BC they expelled the Greeks, who at that time occupied Judea. In Jerusalem, Jews immediately rededicated the Second Temple after

the Greeks had desecrated the shrine in various ways, such as sacrificing pigs on the altar.

The rededication took eight days. When the Jews came to light candles according to their custom, they discovered the temple had only one jar of ritual olive oil remaining – just enough to keep the lamp burning for a single day.

God, however, blessed the oil so that the lamp burned for a full eight days, just enough time for the temple servants to press new oil, according to the Talmud. Jews now commemorate the ►

“ Every year on the 25th of Kislev, the first candle in the centre of the nine-branched menorah candlestick is lit.

KISLEV

is the ninth month of the Jewish religious calendar, usually lasting 30 days and occurring most often in November and December.

miracle by burning candles for eight days during *Hanukkah* (Dedication) – which is also known as the Festival of Lights.

Biblical scholars believe that neither the celebration's form nor its timing are coincidental. The turning point of winter is celebrated in much of the eastern Mediterranean and the Middle East as an occasion to invoke the sun and celebrate the world's transition to brighter times. The Romans celebrated 25th December as the birthday of the sun god *Sol Invictus* (Invincible Sun), while the Persians lit bonfires to summon the sun.

The Greeks also celebrated midwinter and marked the occasion with debauched feasting. For the victorious Jews, the

solstice was therefore a natural time to celebrate the Temple's rededication.

Many Jews had been heavily influenced by Hellenic customs under Greek rule and could now simply continue the tradition of celebrating the return of light to which they were accustomed. And those Jews who held fast to the old traditions could follow the same rituals to celebrate Hanukkah, but for a different reason: the triumph of Jewish teachings over Greek paganism and its



Abraham is commanded by God to sacrifice his son Isaac, but an angel intervenes at the last minute. Sacrifices played a part in all early religions.

God was created by the Jews

The Israelites were the first to choose monotheism, the belief in one all-powerful deity. The transition to monotheism occurred after the Israelites established themselves as the dominant group in Canaan. Before this, people were polytheists, believing in multiple gods – or animists, who believe that nature and everything in it are animate and divine beings. The conversion to monotheism happened, according to Christian doctrine, when Moses was leading his people out of Egypt and into the land of Canaan around 1250 BC. He received two stone tablets bearing the Ten Commandments directly from God. "You shall have no other gods before me," read the first commandment (Exodus 20:3). In fact, it took centuries for the Israelites to stop worshipping other deities – such as Canaanite fertility gods.



The Mesha Stele, 3,000 years old, makes the first known mention of the Israelite god Yahweh outside of the Bible.

decadent celebrations. The ambiguity over the celebration was probably deliberate, because many historians believe that the fighting in 164 BC was partly a civil war between traditionalists in the countryside and Hellenised Jews in Jerusalem. This theory is partly based on the fact that the Greeks desecrated the Temple. This act was unusual, as the victorious Greeks usually left those they'd conquered to worship their own deities in peace. This may indicate that in this case the Greeks perceived the traditionalist Jews as a threat to their occupation.

Hanukkah wasn't celebrated with much gusto until the nineteenth century, when Christmas became immensely popular in the United States, and American Jews adapted Hanukkah to become a time when families got together and exchanged

gifts. Historians point out that Christmas, like Hanukkah, probably has pagan origins. The twin customs of feasting and giving gifts is thought to have originated in the solstice celebrations of ancient Rome.

Where do Jewish food laws originate?

As with Hanukkah, the origins of Judaism's dietary laws have long interested historians. The rules are described in detail in the Bible. For example, in the first chapter of Genesis, animals and man were permitted to eat all kinds of plant food. Only after the Flood did God permit man to eat animals, telling Noah, "Everything that lives and moves about will be food for you. Just as I gave you the green plants, I now give you everything," (Genesis 9:3).

Not all living creatures are permitted to be eaten – God tells Moses, "You may eat any animal that has a divided hoof and that chews the cud," (Lev. 11:3). However, this is followed by a long list of species considered "unclean", including carnivores, shellfish and fish whose scales cannot be removed.

Blood is considered particularly unclean, which is why Jews only eat animals that have been slaughtered using a special method called shechita. The butcher cuts the carotid artery while the animal is alive to ensure that as much blood as possible flows from it. The butcher, known as a shochet, is specially trained to carry out this task, which includes making sure the animal is not sick or injured. Jews are not allowed to eat diseased or dead animals.

The family member in charge of cooking must also make sure that the meat is devoid of blood before it is served, and the cook must ➤



remember never to mix meat and milk. Jews find the reason for this rule in Exodus. “Do not cook a young goat in its mother’s milk,” the scripture warns (Exodus 23:19). It’s repeated several times, and Orthodox Jews interpret the text so strictly that they not only avoid mixing milk and meat in the same dish, but also avoid eating meat and dairy products at the same meal. Many also have two sets of utensils – one for cooking meat and one for dairy products.

The edict about not boiling a kid in its mother’s milk is interpreted by many modern biblical scholars as part of a general admonition to show compassion to all creatures. Indeed, similar prohibitions are found in the Torah, which, for example, forbids killing a cow and its calf on the same day and removing a chick or egg while the mother is watching.

Hygiene drives food bans

If you take off your biblical glasses and try to understand how these prohibitions came about – during a time when you’d think any kind of food would be vital for the family’s survival – you’ll reveal one potentially interesting theory, namely that some of the laws were most likely passed due to concerns over hygiene. For example, it makes good sense not to eat a sick animal as it may carry an infection. A dead animal, as well as potentially harbouring disease, might also be contaminated with putrefactive bacteria.

As a result, scholars have concluded that this concern for health and safety explains other Jewish food laws, too. Maimonides (c. 1135-1204)

“A dead animal might harbour disease and also be contaminated with putrefactive bacteria.

– a Jewish philosopher, astronomer and physician – put forward the theory in his book *The Guide for the Perplexed*. Here he argued that Jews allowed those foods that were healthy for man, forbidding anything that was considered unclean or unhealthy.

On the subject of pork, he wrote with obvious disgust: “The principal reason why the Law forbids swine’s flesh is to be found in the circumstance that its habits and its food are very dirty and loathsome ... If it were allowed to eat swine’s flesh, the streets and houses would be more dirty than any cesspool.”

Rabbi and scholar Nachmanides (1194-1270) was of the same opinion. He believed, among other things, that only fish containing fins and scales were *kosher* (fit for consumption) because sea creatures who didn’t have one or the other usually lived deep in the sea where the water was muddy, dark and cold. Consequently, these fish could not be suitable for human consumption. In this way, the Torah served as a kind of medical encyclopaedia, ensuring that essential knowledge about dangerous food was passed down to new generations.

Diet was tested in the laboratory

While medieval scholars philosophised their way to conclusions, twentieth-century scientists experimented. In the 1950s, for example, US pharmacologist David Macht tested the theory that kosher foods were healthier in a laboratory. Here, Macht conducted a series of studies with seeded lupine plants. Macht added extracts of meat and muscle from permitted animals to some of the plants and then compared their growth with that of plants fertilised with meat from forbidden animals.

Macht’s studies, published under the title ‘An Experimental Pharmacological Appreciation of Leviticus XI and Deuteronomy XIV’, showed that extracts from permitted animals “were practically non-toxic for the root growth of the *Lupinus* seedlings, i.e. did not inhibit their growth”.

In contrast, Macht discovered that extracts from forbidden meat such as pork, hare and camel were toxic to the plant. Macht also examined a total of 54 fish species: “It was found that the muscle extracts of those fishes which possess scales and fins were practically non-toxic, while the muscle extracts from fishes without scales and fins were highly toxic for the growth of *Lupinus albus* seedlings.”

Modern scientists point out that the study reveals nothing whatsoever about how the meat will affect humans. Macht’s studies also fall into





The wall of the Temple of Khonspekhrod in Egypt depicts one of the oldest circumcision scenes in history. Built in 1360 BC, the temple proves that circumcision was a part of the region's culture before the ritual was described in the Old Testament.

the category of phytopharmacology, a branch of plant medicine that mainstream science does not recognise as serious research.

In general, twenty-first-century scientists are sceptical about Jewish dietary advice being driven by health and hygiene issues. Modern science recognises that seafood, for example, can be poisonous for humans to consume as it is easily spoiled, but a blanket ban would be completely out of proportion to the risks.

As for pigs, pork is among those foods at high risk of containing salmonella. Meat is far from being the only carrier of the bacterium, however, and the risk of infection can be significantly reduced by following some simple advice on food preparation.

The Jewish dietary laws could just as well have included advice on preparation, argue scholars, who also point out that the Torah allows people to consume fruit and vegetables without restriction, even though some plants are highly toxic.

Although the most common theory remains that the bans originated as precautions against bad

food at a time when even simple illness could be fatal, another hypothesis has also gained ground in recent years.

Rivals loved pork

Some biblical scholars believe that Judaism, with its strict set of rules, tried to create and maintain a distinct group identity in a society comprising many different religions and cultures. Strict rules on food and lifestyle limited the interaction between Jewish communities and non-Jews, while also making it less attractive for outsiders to marry into the Israelite family.

Indeed, recent findings support the hypothesis that the exclusion of pork was designed to create a group identity rather than act as a health measure. Excavations show that people living in Canaan, west of the Jordan River, ate pigs long before the Israelites made their presence felt. Archaeologists have found 5,000-year-old pig bones in excavations, and some of the findings suggest that the pig was even used as

Continued on page 104

From **1500 BC** to **2021**

3,500 YEARS OF THE GREAT RELIGIONS

Hinduism was the earliest of the great world religions. Later came Judaism, Buddhism and Islam. But all were eclipsed by Christianity, which is now the world's largest.



c. 1500-800 BC:

The religious writings called the Vedas are written down in India. They are the basis for the religious and philosophical teachings that Western religious scholars call Hinduism.



c. 1250 BC:

The Hebrew god is named when he declares to Moses "I am who I am" (Exodus 3:14). God is then called YHWH (Yahweh, meaning 'He who is').

c. 613: Muhammad, a merchant from Mecca, begins preaching the messages of Allah – God – which he received through the archangel Gabriel.



c. 80: The earliest of Christianity's Gospels – the Gospel of Mark – is written down, probably in Asia Minor or Syria.



c. 32: Peter becomes the first bishop of Rome, a title now more commonly known as 'pope'.

622: Muhammad settles with a number of followers in the city of Medina. Here they create the first Islamic community. Eight years later, Mecca becomes the holy city of Islam. Soon the entire Arab world professes the Muslim faith.



1095: Christians and Muslims clash during the First Crusade. The Crusades continue until the thirteenth century.





c. 1000 BC: The Jews write down the Torah, the earliest part of the text that Christians later call the Old Testament. The Jews, now settled in Canaan, become the first people to worship a single god.

c. 430 BC:

Siddhartha Gautama, a young Nepalese aristocrat, leaves home to become a wandering, ascetic monk. Six years later, after a night of intense meditation under a *pipal* (fig) tree in Bodh Gaya, Siddhartha Gautama declares himself enlightened and thus becomes Buddha.



c. AD 31: Roman prefect Pontius Pilate sentences Christ to death for blasphemy. The condemned man is crucified outside Jerusalem. The apostle Peter takes over the leadership of the small Christian community.



c. 4 BC:

According to the Christian Gospels, Jesus Christ is born in Bethlehem. As an adult, he begins preaching around Galilee. Christ tells of the coming of the Kingdom of Heaven and heals the sick.

1517: The German monk Martin Luther posts his *Ninety-Five Theses* on the door of a church in Wittenberg. A critique of the Catholic Church, the theses usher in the Reformation, which splits the Christian Church into Catholic and Protestant parts.

2021: Around 500 million follow the teachings of Buddha, while one billion profess Hinduism. Judaism has a total of 14 million followers, Christianity 2.2 billion and Islam 1.6 billion.



Religions have much in common

Jews, Christians and Muslims build their faiths on rituals that are similar to each other. The exception is the dietary rules, which Christians have – almost – completely abandoned.

Birth

Common to all religions is that newborns must be incorporated into the religious community. This can be done through physical interventions or symbolic ones.



JUDAISM:

Circumcision of male children is Judaism's most important birth ritual. The act – to be performed on the eighth day after the boy's birth – symbolises the covenant that binds God to the Jewish people.

A trained layman performs the procedure, and at the same time the boy is given a name. The family celebrates the event with a big party. The naming of girls is marked by the father being called forward at the Torah reading in the synagogue after the child's official naming, which simply involves reporting the birth and name to the authorities. The father then says the girl's name aloud.



CHRISTIANITY:

In Christianity, baptism marks that the child – or the adult who chooses to be baptised – is now a child of God and a member of the Christian community.

The baptised child or the godmother – who has the task of carrying the child – confirms, after the priest's question, that the child believes in God and renounces the devil. The priest sprinkles a little water three times on the forehead of the baptised child as a symbol that they have been reborn as a Christian to eternal life.



ISLAM:

Immediately after birth, a family member whispers the call to prayer (*adhan* - to listen) into the baby's right ear followed by the left. The *adhan* includes the Muslim creed, which protects the child. Some families welcome the baby by smearing its gums with soaked dates or honey while reciting a prayer. The naming ceremony takes place on the seventh day, when the child's head is shaved and they're named. Boys may also be circumcised.





Death

Burial plays an important role in all three religions. The deceased must be buried properly so they have a chance of being resurrected on the Day of Judgement.



JUDAISM: Jewish law requires the burial to take place quickly. Cremation is forbidden, because the body must remain intact for the deceased to be resurrected on *Yom HaDin* (Judgement Day). During the funeral, the rabbi reads Hebrew prayers and also gives a speech about the deceased. At the grave, as the coffin is lowered into the ground, the bereaved read the burial Kaddish, a prayer attached to the memory of the deceased. Among Orthodox Jews, it is common for the rabbi to tear the garments of the immediate family as a sign of mourning. The burial casket is never opened.



CHRISTIANITY: Christians have largely adopted the burial rituals of Judaism. One difference is the reason for bodies facing east when buried – Christians believe that on the last day, Christ will return with the sun from the east and raise the dead from their graves. "Earth to earth, ashes to ashes, dust to dust," is often used at funerals as part of the committals to signify the hope of resurrection. Protestant churches recognise cremation, but it is still forbidden to Catholics.



ISLAM: Islam's funeral rituals are similar to Jewish and Christian customs. However, Muslims are buried facing Mecca, the birthplace of the Prophet Muhammad. Some congregations read the Qur'an, which is similar to the Christian ritual of burial: "From the earth We created you, and into it We will return you, and from it We will extract you another time," (20:55).

Like Jews and Christians, Muslims believe that on Judgment Day God will raise the dead so that they can receive their punishment or reward in the hereafter.





Food and hygiene

While Christians are allowed to eat almost anything, observant Jews and Muslims need to think twice. Pork is strictly forbidden, and the method of slaughter is crucial.



JUDAISM:

Jewish scripture lays down strict rules about what is *kosher* (permitted) and what is *treif* (forbidden). Meat, vegetables and dairy products must be kept separate. Only meat from animals that both chew the cud and have cloven hooves is allowed. The rule allows Jews to eat cattle, sheep and goats, but not pigs, which don't ruminate their food, or camels, which don't have cloven hooves. When it comes to fish, Jews mainly only eat those with scales and fins. Shrimp, eel, lobster and shellfish are forbidden. The same rules apply to any product made from prohibited animals.



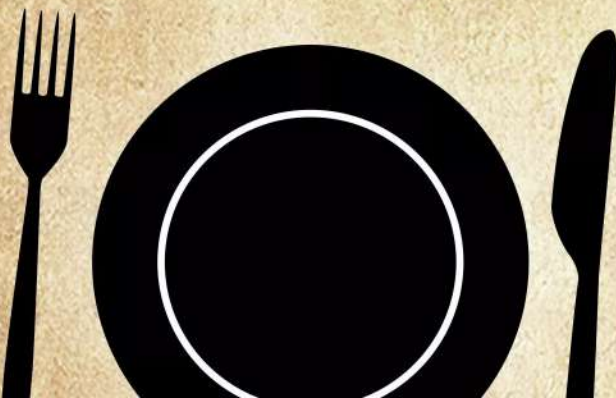
CHRISTIANITY:

Christians no longer have any dietary rules or hygiene practices. The absence of rules is based mainly on the New Testament: "Again Jesus called the crowd to him and said, 'Listen to me, everyone, and understand this. Nothing outside a person can defile them by going into them. Rather, it is what comes out of a person that defiles them,'" (Mark 7:14-15). The exception is the Catholic Church's decree that on Fridays, the faithful may only eat fish. The Church introduced the rule to make it a day of penitence, when Catholics can reflect on others and atone for their own sins.



ISLAM:

Islam's dietary rules are similar to those of Judaism, but less complicated. For example, Muslims are allowed to mix different types of food. As with Jews, pork is forbidden and the Qur'an sets strict rules for the slaughter of permitted animals. "Prohibited to you are dead animals, blood, the flesh of swine ... and [those animals] killed by strangling ... and those from which a wild animal has eaten ... and those which are sacrificed on stone altars," (5.3). A Muslim may therefore only eat meat from halal-slaughtered animals. During the ritual slaughter, the butcher cuts the animal's throat so that all the blood runs out. The Qur'an also directs Muslims to wash according to special instructions before each of the day's five prayers.





Transition to adulthood

Judaism and Christianity have a clear transition to adulthood through confirmation and the two Jewish rituals of bar mitzvah and bat mitzvah.



JUDAISM:

The twin rituals of bar mitzvah for boys and bat mitzvah for girls mark a young person's entry into adulthood at puberty. The boys read from the Torah as a sign that they are now adults and thus full members of the congregation. Girls simply attend the synagogue. In some congregations, girls give a speech. The ritual takes place on the first Shabbat after the age of 13 for boys and on the first Shabbat after the age of 12 for girls. Most families celebrate with a big party.



CHRISTIANITY:

Baptised Christian children are confirmed in a church, where they reaffirm their faith and commitment to God in front of the priest and congregation.

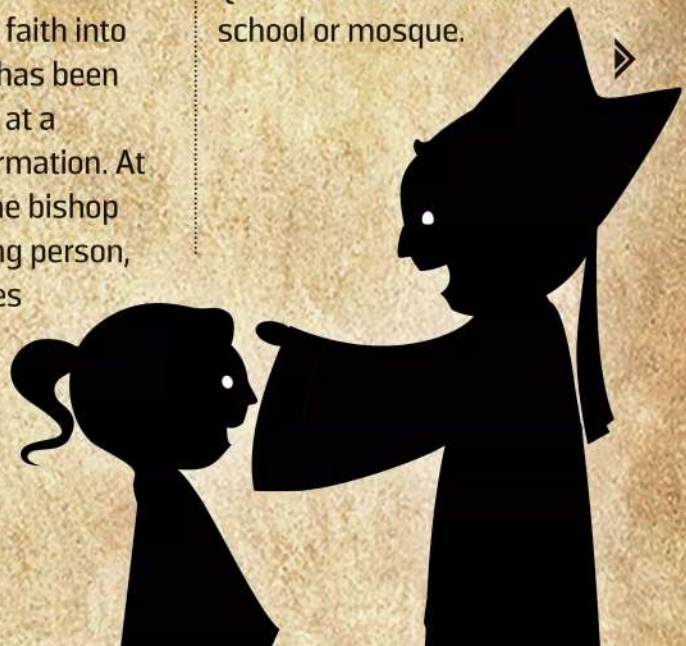
Unlike Protestants, Catholics have two rites of passage: First Holy Communion takes place when the child is 10-11 years old, and Confirmation takes place at 14-16 years of age. At communion – which is the Catholic term for Holy Communion – the child affirms the faith into which he or she has been baptised, just as at a Protestant confirmation. At the ceremony, the bishop blesses the young person, who then receives the Holy Spirit.



ISLAM:

In reality, Christian confirmation ratifies the rite of baptism now that the child is old enough to speak for themselves. Since Islam does not have a baptism ritual, there's no need for a confirmation, and consequentially Muslims do not ritually mark the transition from child to adult.

However, a Muslim must learn the religion's message and conventions throughout childhood. This is done partly at home and partly through Qur'anic instruction in a school or mosque.





Holidays

Celebrations and festivals are an important part of life for Jews, Christians and Muslims alike. They mark the passing of the year and commemorate historical events.



JUDAISM:

The Jewish calendar features many festivals, of which Pesach – the Jewish Passover – is one of the most traditional. It marks God's deliverance of the Jews from Egypt and their path to the Holy Land. According to tradition, the newly freed Israelites were forced to leave Egypt in such a hurry that the bread they prepared for the journey had insufficient time to rise. Consequently, the night before Pesach, families gather to eat unleavened bread. They also listen to the story of the Israelites' deliverance from Egypt and eat bitter herbs in memory of the slavery in Egypt. The recital ends with the words "next year in Jerusalem", a message expressing faith that God will help the Jews back from exile and protect his chosen people.



CHRISTIANITY:

For Christians, Easter is linked to the story of Christ's suffering and death, making it Christianity's holiest festival. It begins on Palm Sunday, when Christ rode into Jerusalem on a donkey, greeted by people waving palm branches. Here he prepared to die in accordance with prophecy. On Maundy Thursday, Christ ate his last meal surrounded by his disciples, with whom he was preparing for his imminent death. The next day, Good Friday, he died on the cross. Good Friday is the holiest day of the church year, since it was then that Christ atoned for mankind's sins and thereby guaranteed all who believe eternal life.



ISLAM:

Every year, Muslims observe Ramadan – a 30-day period of fasting during which believers abstain from food and drink from sunrise to sunset. When the sun sets, family and friends gather to eat and talk. The holiest night of Ramadan is the twenty-seventh, which is called *Laylat al-Qadr* (Night of Destiny) and marks the night in AD 610 when the Prophet Muhammad, resting in a rock cave, had the first verses of the Qur'an revealed to him.





Prophets

The prophets take different forms in the sacred writings of Jews, Muslims and Christians, but are central to all three monotheistic religions.



JUDAISM:

Abraham is one of the most important figures in Judaism. According to Genesis, God commanded Abraham and his wife, Sarah, to travel to the land of Canaan. If Abraham obeyed, God would give him the land and numerous descendants. Christ, on the other hand, plays no special role in Judaism. At the time of his birth, the Jews were indeed waiting for a saviour who would bring peace to the Jews' troubled land. For the Jews, however, Christ is not that saviour. Rather, they see him as a learned rabbi or perhaps a prophet.



CHRISTIANITY:

Unlike Jews, Christians believe that people are saved by faith and not by following the law. Christians therefore admire Abraham, who obediently did everything God told him to do: "[Abraham] is the father of all who believe," wrote Paul (Rom. 4:11). Christians also believe that Christ's lineage can be traced back to Abraham. In addition to Abraham, Christians have a number of prophets, each of whom foretold the coming of Christ in the Old Testament. Among the most important are Isaiah, Jeremiah and Ezekiel.



ISLAM:

Muslims refer to prophets either as *Nabīy* (Prophet) or *Rasūl* (Messenger), implying a human being sent to spread God's message. Islam broadly shares prophets with Jews and Christians. Moses is the most important among them and is the person whose name is most frequently mentioned in the Qur'an. Abraham is also among the Muslim prophets, but the story is not the same as that told by Jews and Christians. According to the Qur'an, Abraham – called Ibrahim – is the father of Ishmael, the progenitor of the Arabs. Together, Ibrahim and Ishmael build the Kaaba, Islam's holiest site in Mecca. Jesus is described in the Qur'an, but is merely a prophet who precedes Muhammad, the only prophet revered in Islam.





The reading of the Jewish holy scripture, the Torah, takes place on specific days. Shorter passages are read every Monday and Tuesday, and longer ones on Saturday. Readings also take place during festivals.

a sacrificial animal – a sign that indicates the pig was once considered sacred.

Archaeologists know that the Canaanites and Philistines – the two peoples who lived closest to the Israelites and competed with them for dominance in the region – ate plenty of pork, and the Philistines were so fond of it that 3,200 years ago they had particularly flavoursome pigs shipped to the region from Greece, according to genetic studies conducted in 2017 on **pig bones** found in modern-day Israel and nearby areas. This is why researchers believe the need to stand against the ancient polytheistic Canaanite religion as well as define their own distinctive identity may have been two reasons why Jewish lawmakers took such a hard stance against pork.

Circumcision is commanded by God

It's far from a majority of Jews who observe all dietary laws. Statistics show, for example, that only 20 percent of US Jews exclusively eat kosher foods, even when they are at home. On the other

hand, the vast majority of male Jews – about 90 percent – are circumcised. A congregational leader performs the procedure, which removes the foreskin from the boy's penis.

The ritual is called *Brit Milah* (The Covenant of Circumcision). The name refers to the covenant that God made with the Jewish people through the patriarch Abraham, described in Genesis: "This is my covenant with you and your descendants after you, the covenant you are to keep: Every male among you shall be circumcised. You are to undergo circumcision, and it will be the sign of the covenant between me and you. For the generations to come every male among you who is eight days old must be circumcised," (Genesis 17:10-12).

The commandment of circumcision is considered to be as important as all other commandments combined. The reason is that according to gematria, the Hebrew alphanumeric code, the word "brit" has the numerical value of 612, which is the number of all other commandments (minus the commandment to circumcise). According to the

PIG BONES

Genetic studies of 3,200 pig bones from Israel and Greece reveal that Philistines ate Greek pigs. A parallel study of cow bones showed no genetic link between cattle from Greece and Canaan.

Talmud – the written interpretation of the Torah – circumcision is so important that it must be carried out on the eighth day after a boy's birth, even if that day falls on the Sabbath, the weekly holiday in which work is otherwise strictly forbidden.

Why circumcision is so important, and why Jews practice the custom in the first place, is something that scholars have been trying to answer. Is there any reason why the command to circumcise arose in the Bronze Age in the hot Middle East, other than that it was given by God? The answer is possibly, according to archaeologists and historians who have found evidence that Jews may have had non-religious reasons for being circumcised.

One clue is found in the book of Joshua in the Old Testament: "At that time the Lord said to Joshua, 'Make flint knives and circumcise the Israelites again.' So Joshua made flint knives and circumcised the Israelites at Gibeath Haaraloth," (Joshua 5:2-3).

Historians are particularly interested in the word "again", which suggests that the Israelites had already been circumcised once. The wording is interesting because the events in Joshua took place just after Moses had led the Israelites out of Egypt. Indeed, circumcision was already known in ancient Egypt – the earliest references to the procedure date from around 2400 BC, when a relief at Saqqara, a burial site associated with the ancient city of Memphis, depicts a circumcision.

The relief is far from being unique. For example, an image carved into a temple wall in the Karnak Temple Complex in Luxor around 1360 BC clearly shows a man circumcising a young man or older boy. In the oldest written account of circumcision, again from around 2400 BC, an Egyptian named Uha provides a vivid account of a mass circumcision.

Some scholars believe that the Israelites adopted the tradition of circumcising boys from Egypt. The theory explains Joshua's words about circumcising the Israelites again. The Egyptians

Banned | Pork

RUMINANTS Only meat from ruminants with cloven hooves is allowed, along with birds such as chickens.

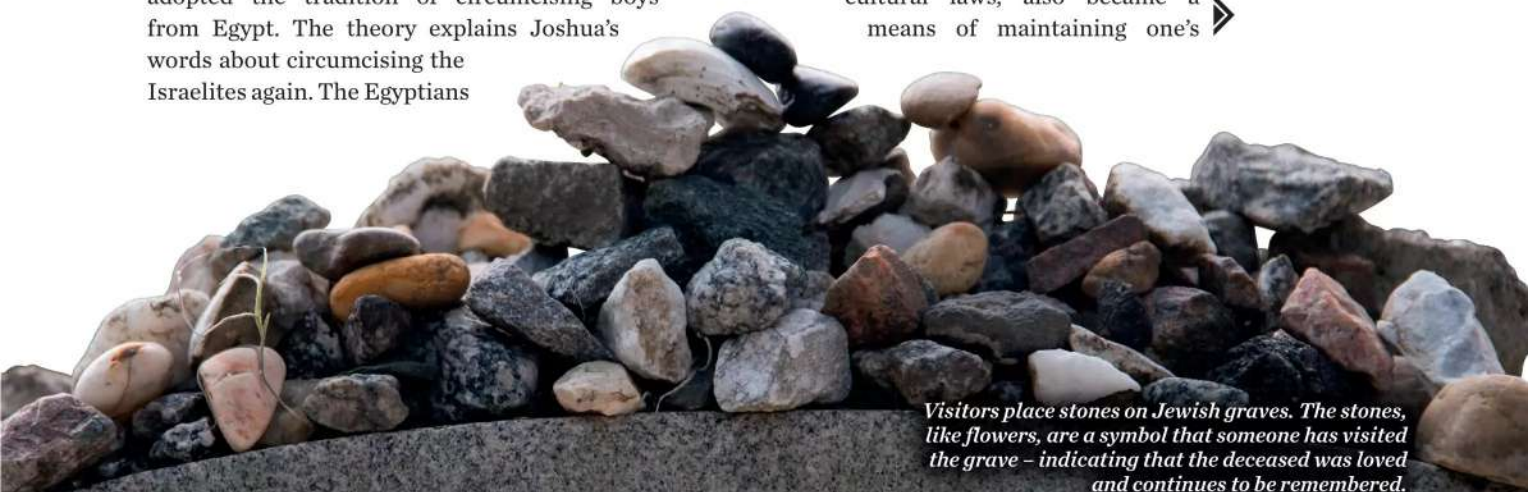


removed only part of the foreskin, while Jewish boys had the whole foreskin removed.

The Greek historian Herodotus, writing in the fifth century BC, says that the Egyptians "practise circumcision for the sake of cleanliness, considering it better to be cleanly than comely". Most historians, however, believe that circumcision was more a kind of initiation into manhood and perhaps a form of religious service. The theory that the custom originated in Egypt does not explain why the Jews' operations were more extensive than those carried out by the Egyptians. Indeed, some scholars believe that the Jews adopted the custom from Africa or southern Arabia. There, the population was using circumcision as a rite of passage even earlier than the Egyptians.

Identity must be protected

That circumcision, like dietary and other cultural laws, also became a means of maintaining one's



Visitors place stones on Jewish graves. The stones, like flowers, are a symbol that someone has visited the grave – indicating that the deceased was loved and continues to be remembered.



identity is demonstrated in a passage in Exodus. The scripture states that a stranger who wishes to participate in the Jewish Passover celebration must be circumcised. Similarly, Genesis states that one who is to be married into a Jewish family must be circumcised. Thus, circumcision serves to protect the Jewish identity from outsiders.

Jewish funerals also have their own distinctive features. At the funeral and later visits to the grave, mourners bring a stone that they place on the resting place of the deceased. Neither historians nor Jewish scholars know for sure where the custom began or what it originally symbolised. It's possible that it originated from the time of Moses, when the Hebrews were travelling through the desert towards the land of Canaan. In many places, the sun-dried earth was so hard that it was impossible to bury the dead, so the bereaved covered them with stones instead. This theory posits that the custom continued even after the Hebrews had settled in Canaan, and today endures through the deceased's family placing pebbles or small stones on their tombstones.

For Jews, the stone also symbolises permanence, unlike flowers. In addition, it expresses the idea that everyone is equal in death. While not everyone might be able to afford to buy flowers, anyone can pick up a stone and bring it to the grave.

Sidelocks signify wisdom

For Orthodox Jews, it's not just festivals and food that are an important part of who they are. Hairstyle and dress are also a mark of identity. Some male Jews, for example, wear easily recognisable sidelocks – finely twisted ringlets of hair that hang down in front of their ears. This custom is rooted in religious scripture: "Do not cut the hair at the sides

of your head or clip off the edges of your beard," (Lev. 19:27). Some interpret this as meaning they may cut their hair so long as they refrain from using razors or clippers; others take the words literally and let the hair around the ears grow. To prevent these long locks from hanging limply, men use curling tongs to achieve the tight curls.

Some Jews believe the sidelocks demonstrate that the wearer values intellect and good behaviour over their appearance. Indeed, fashionable haircuts are viewed as a sign of vanity by more pious Jews.

Jewish men always wear the kippah – a brimless cap usually made from cloth, and also known as the yarmulke – inside the synagogue, at the Sabbath meal and during festivals. Some also wear the kippah in public and informally at home.

The kippah didn't come into general use until the sixth century AD – prior to this, only prominent men wore headwear. Orthodox Jews always wear the kippah. According to the *Shulchan Arukh*, a legal code written by the Jewish scholar Joseph Karo in 1565, it is forbidden to walk more than two metres bareheaded. Seven hundred years after the kippah came into fashion, particularly orthodox Jews took to wearing another type of headgear: the tall, black hat. Both the Catholic Church and Jewish clergy agreed in the thirteenth century that male Jews should wear distinctive headgear. In the Middle Ages, Jews wore either yellow cone-shaped pointed hats, known as the Jewish hat, or tall, wide-brimmed black hats. The latter remains part of the religious dress code and is obligatory within the synagogue and when reading prayers or religious texts. It can, however, be replaced by a kippah.

Some Jews wear a large fur hat called a shtreimel on holidays and other festive occasions. **Polish Orthodox Jews** adopted the custom from the Polish aristocracy in the eighteenth century as a sign of distinction. It was around this time that a particularly orthodox Jewish movement – the Hasidic Jews – emerged in Eastern Europe. Similarly, the long black coat worn by some Jews was originally part of the dress worn by the Eastern European upper classes. By wearing the coat, the Jew identifies himself clearly to both insiders and outsiders.

Jews are a closed circle who see themselves as God's chosen people, living and eating according to God's commandments. And although 16 percent of Israeli Jews eat pork today, the laws surrounding eating are still well known and form part of their cultural identity, along with other customs. The result is a distinct identity that has ensured the survival of Jewish culture over the centuries, despite persecution, expulsion and genocide. ■

POLISH JEWS

For 1,000 years, Poland was home to the largest Jewish population in the world.

But during the Holocaust, virtually all of the country's three million Jews were exterminated.



WE KNOW FOR SURE

Judaism is a legal jungle

- The Jewish religion **lays down laws for virtually all aspects of life.**
- The laws are written in the Torah, the holy scripture of the Jews, **and the Jews consider these laws and prohibitions as given directly by God.**
- **The rules are explained in the Talmud, a book written by scholars.**
- Some rules like **circumcision are considered more important than others.**
- Not all observant Jews **abide by the rules.**

16

percent of Jews in Israel today eat pork. Similarly, the ban on eating fish is also often viewed with leniency.



WE NEED ANSWERS

Why did the Jews set these laws?

1

For years, scholars have speculated as to why the Jewish religion sets out so many complicated rules and regulations, such as for food. Some believe that the Torah's advice is due to the fact that Israelites in the past either consciously or

unconsciously possessed advanced knowledge of hygiene and disease prevention. That theory emerged around 1900, when science in general and medicine in particular were recording major breakthroughs. The hypothesis has proved to be far from true in all cases.

Instead, some scholars now believe that the Jews set the laws to

set them apart from other – competing – religions and peoples. Others argue that in many cases the laws had symbolic meaning to help the believer focus on the religion's message – for example, pure versus impure and good versus evil. And some also believe that the rules by themselves promote discipline and strengthen the spirit.



About two million Jews live by Orthodox principles, which strictly follow the words of the Torah.



In 1885, after 400 years hidden beneath layers of whitewash, archaeologists uncovered the incredible frescoes in Elmelunde Church on the Danish island of Møn.

FORBIDDEN ART

In the Middle Ages, any sin could lead to the death penalty. Yet artists and masons managed to decorate churches and Bibles with explicit drawings. What their purpose was, no one knows, but the clergy must have accepted or even encouraged the obscene works of art.

Danish history and relics were all the rage when archaeologist Jacob Kornerup carefully removed layers of lime from the walls of several Danish churches in the mid-nineteenth century. Kornerup knew that underneath lay countless frescoes – murals painted upon wet lime plaster – from the Middle Ages. The church congregations watched on eagerly, but the results were not quite what they expected. The lime hid not only beautiful depictions of Christ and his angelic host. Hidden among the pious biblical depictions were scenes that most nineteenth-century folk would not dare describe in words, for the frescoes contained transgressive sights that few associated with the medieval fear of God and horror of sin. On one church wall, grinning devils grabbed a half-naked woman, while elsewhere a jester urinated directly at the congregation. In a third church, a man defecated in the presence of Christ himself. The blasphemy was clear for all to see.

These incredible scenes were not unique to Danish churches. All across Europe, archaeologists and historians uncovered motifs with sexual and blasphemous content in churches, monasteries

and within the pages of holy books. How these provocative images and figures found their way into the sacred spaces of Christianity, and why the Church allowed them in the first place, is something historians have been trying to find out ever since.

Pictures educated the masses

We know today that **frescoes** – and images in general – played a crucial role during medieval times. Aside from priests and other highly educated people, very few could read, while church services were conducted in Latin, which few understood. The images in churches and books provided a way for the illiterate to access the Bible's teachings

and the Church's outlook on life. Consequently, medieval churches were richly decorated with everything from magnificent paintings to remarkable statues. All over Europe, artists, architects, writers and sculptors worked hard to convey God's message, and while some achieved eternal fame for their magnificent works,

such as Michelangelo for his frescoes in the Sistine Chapel, other craftsmen remained unknown. Their works were insignificant and obscure, blasphemous and grotesque, and were later forbidden from inside churches.

From 1150 to 1400, thousands of churches and cathedrals sprang up across Europe. The ➤

” Church services were conducted in Latin, which few understood. The images provided a way for the illiterate to access the Bible's teachings.

FRESCOES

from the Middle Ages can be seen in more than 600 Danish churches – the most in Europe. The paintings were covered up after the Reformation and rediscovered only in the 1800s.

Tools | Artist's brush

SQUIRREL Soft squirrel hair was also used. There were often hairs from six to eight squirrel tails in a single brush.

PIG The hairs on the brush could be stiff pig bristles that were softened before use.

vast majority were built in the Gothic style, with large upward-pointing spires and arches, and later decorated with statues. Here gargoyles and figures of Christ compete side-by-side with naked devils and masses of acrobats. The acrobats are a sign that medieval artists drew inspiration from each other. The motif recurs in so many Gothic churches that it can't be coincidence.

The acrobats, who are basically human figures in distorted poses, cause historians some headaches because it's impossible to interpret their meaning. However, it's highly likely that they served a purely decorative purpose, as well as advertising the stonemason's skills to the public. Being able to reproduce the human body in motion was difficult, so they acted as a kind of calling card for the craftsman, securing him new work elsewhere.

But human figures were not all harmless motifs to impress the audience. The images were also the artist's opportunity to plant a thinly veiled message to people with whom he had a grudge. This category fits the 'urinating' stone figure on the south side of the twelfth-century All Saints Church in Easton on the Hill in Northamptonshire, England.

The figure squats, legs spread wide apart, while rainwater gushes out of a strategically placed hole. Its insolence is demonstrated by the fact the man is simultaneously turning around to scowl directly at the observer – who is in the line of fire of the symbolic stream of urine. According to local folklore, the figure represented the artisan's revenge for not being paid fully by the church for his work. The urinating figure's backside faces Peterborough Cathedral, the seat of the miserly stonemason who refused

to pay the sculptor's fee. This explanation is plausible, but at the same time scholars believe the figure served a dual purpose.

Historian Emma J Wells of York University believes the urinating figure was used to draw a clear line between the worldly and the spiritual. Medieval people made a strict distinction between the sacred, which they considered pure and sublime, and the earthly or profane, which was characterised by the exact opposite.

Wells argues that the figure could therefore have been carved on the wall to emphasise the contrast between the spiritual space inside the church and the world outside, where people were preoccupied with basic bodily functions and everyday demands. Some scholars believe that the bare bottom may also have served to protect the church from the Devil, who would be distracted by the sight, leaving believers to worship God in peace.

Churchgoers might shudder, be shocked or giggle covertly at the figure, all while piously stating that the point of the shamelessness was a noble one, namely to ward off the Devil himself.

Vaults hid forbidden art

However, perverse figures weren't only placed outside churches. They could be found inside, too, usually placed in the church's more secluded corners. When St Mary Redcliffe Church in Bristol needed repairing because of a collapsed spire during 1330 to 1446, the craftsmen dutifully decorated the ribs – the projections between the vaults – with figures and scenes from the Bible. The purpose of the decorations was to remind churchgoers they were entering a particularly holy place within the church, such as an altar or shrine. On one of the ribs, however, one craftsman deviated from his theme. Here, a naked man squats to 'defecate' on all who walk beneath him.

The corners behind these projections are hidden from the majority in the church building, so were perhaps where craftsmen and builders alike gave vent to their wildest and most forbidden fantasies. The phenomenon is not confined to English churches. For

example, Danish churchgoers could be amused or horrified in equal measure by the depiction of a man, apparently without shame, attempting to have sexual intercourse with one of the ribs in the church at Dalum on the island of Funen.

The ribs and outer walls of a church are therefore a good place to look for hidden

“ The urinating figure's backside faces Peterborough Cathedral, the seat of the church's miserly stonemason. ”

Monks wrote books on assembly lines in Europe's monasteries

For centuries, monasteries were the printing houses of the Middle Ages, where Bibles and other texts were copied and then illustrated. Many of the hidden messages secreted into symbolic drawings in the margins and elsewhere in the books were made in the monasteries.

The monasteries were responsible for reproducing the Bible and other medieval religious literature. Monks worked on the manuscript from start to finish, including transcribing the text, drawing the illustrations and illuminating the images with polished gold or silver. Each part of the process

was taken on by a specialist, assisted by lay scribes and illuminators from outside the monastery.

The typical working day for monks was six hours, and the writing for larger projects took place in a scriptorium, a writing room containing many desks. Here the monks worked almost in

assembly-line fashion to complete the impressive manuscripts. The process of completing a book could take months, and the most talented monks were often excused from prayer and other religious duties so they could write around the clock to speed up the copying process.

Monks copied and illustrated sacred texts in special writing rooms for wealthy patrons.



messages from medieval artists. We know that churches were also decorated with large numbers of paintings, but unfortunately many of them have vanished forever. After the Reformation in the sixteenth century, Lutheran churches around Europe ruthlessly removed paintings from churches so that congregations could concentrate on listening to God's word, which was now preached in their native tongue. In many churches, the decorations were destroyed during iconoclastic waves during the Reformation.

Fortunately, Danish church authorities simply left the frescoes alone until they went out of fashion during the seventeenth century. The walls were then whitewashed to cover the paintings. Compared with the rest of Europe, Denmark has 600 decorated churches, making it a popular hunting ground for researchers of medieval frescoes. When **Jacob Kornerup** removed the layer of whitewash in the nineteenth century, most of the paintings were in such good condition that the motifs could easily be interpreted after restoration.

JACOB KORNERUP

was a Danish architectural painter and archaeologist. He was born in Roskilde in 1825 and died in 1913.

The Middle Ages were full of sex

Danish churches contain a total of 10,998 frescoes with religious motifs, offering a rich selection of cheeky illustrations. The figure was compiled by Axel Bolvig, a Danish historian who surveyed, studied and interpreted the images in the 1990s. In his 1999 Danish-language book *Danske kalkmalerier* (*Danish Frescoes*), Bolvig describes

the motifs, which provide a rich seam of knowledge about the real Middle Ages. They reveal it was not as pious as we have long believed. In many cases, the frescoes are not for the faint-hearted.

In Tuse Church on the Danish island of Zealand, a painting shows a woman being accosted by two devils while brewing beer. The woman has stuck a spigot – a small peg or tap for bottling – into the beer cask. One of the devils helps her, while another has stuck his spigot between her legs and is tapping her juices into a jug. The scene, with its symbolism of the spigot and the jug, is a good illustration of how temptation and evil can infiltrate even perfectly everyday and recognisable situations, such as brewing beer. In other words, the faithful must always remain alert to temptation.

The drawing is highly sexual, but the brewing of beer itself was not associated with anything sinful or lascivious in the Middle Ages. Rather, it was intended to show a typical everyday situation. Brewing beer was a routine daily task, which women in particular took care of. Water from wells in medieval Europe was heavily polluted, so beer – fermented and preserved with hops – was much safer to drink.

Churches and monasteries had their own breweries, which made beer for monks, nuns and priests. The church breweries also brewed particularly fine beer, which the clergy sold or gave away as alms to the poor. During the thirteenth century, proper commercial breweries emerged in Denmark, but the peasantry still brewed beer for their own consumption, and the work, like all other food and drink production, was done by women, as shown in the painting. The scene is part of a series of frescoes that together illustrate the Day of Judgement and show how the Devil tempts souls.

That the main character is a woman is no coincidence; medieval clergy considered women to be less spiritual, more pleasure-seeking and less contemplative than men – and so easier to lure into temptation.

Churches were gambling dens

No sources reveal how the congregation – or the priests – reacted to such imagery. And the very fact that the images and their obvious blasphemy aren't mentioned anywhere must be a sign that the Church tacitly accepted these motifs. For the Church, attracting people's attention was probably the most important factor, as they could neither read nor understand Latin. They would have already known then what newspapers know today: sex sells. Moreover, medieval

Tools | Charcoal

BAKED The artists sourced their own wood, which they brought to the town's baker. Here, the wood was burnt overnight to produce charcoal.

SKETCHES Charcoal was used for sketching. It should be jet black, and not become crumbly.





MYTH BUSTING

Weeping statues

Olive oil makes statues cry

Apparently, statues of the Virgin Mary can burst into spontaneous, bloody tears. The faithful view the weeping as a miracle, but the truth is found in the statues' construction along with a little blood, animal fat and olive oil.

Around the world there are several statues of the Virgin Mary, all apparently weeping blood spontaneously in a process known as lacrimation. Blood and tears inexplicably flow from the statues' eyes and down their cheeks. For Catholics around the world, the weeping statues are a genuine miracle that proves God's existence.

Scientists have examined weeping statues, and one of the most famous studies took place in Quebec, Canada, in 1985, when a team of scientists went to a statue that had started crying bloody tears. A quick inspection revealed that the statue was hollow and that the cavity was filled with a mixture of blood and animal fat. When the churchwardens lit candles in front of the statue, the heat from the candles warmed the statue and melted the fat. As a result, bloody drops began to ooze out of small holes in the eyes.

Other investigations have revealed statues filled with water or other liquids. Chemist Luigi Garlaschelli of Pavia University in Italy has researched the phenomenon and discovered that most lacrimations follow the same principle. Many statues of saints are partially or completely hollow and made of porous materials such as plaster or ceramics. These materials easily absorb liquids such as water or olive oil. At the same time, the statues are painted or glazed with a thick layer of waterproof paint that traps the liquid. When the fraudster pokes a few tiny holes in the statue's eyes, the absorbed liquid flows out and slowly runs down the statue's

cheeks. Modern technology offers increased opportunities both to cheat and to spot the fraud. In 2000, magician Alfredo Barrago produced an effect that made it look as though a Madonna figure in the church of Sant'Agostino near the town of Civitavecchia in Italy was crying blood. Barrago directed a red laser beam at the statue, and the effect was so vivid that a woman praying in front of the Madonna fainted.

Scientists believe that wishful thinking and mass suggestion can make believers see what they desperately want to see, and confirm each other's visions.

Sociologists point to evidence that there's a marked increase in the number of reports of weeping statues in times of crisis, when people feel they need extra comfort or are looking for miracles.

For example, reports of lacrimations were high in Italy in 1940 – when the country was at war – and in the mid-1990s, when it was in a serious political crisis.

MYTH IN BRIEF

Since the Middle Ages, Christians have seen statues of the Virgin Mary and other holy women or men weeping tears or blood. They consider the phenomenon a miracle.



For believers, the weeping statues are proof that the Bible speaks truth and God exists.

“When the fraudster pokes a few tiny holes in the statue's eyes, the absorbed fluid flows out and slowly runs down the statue's cheeks.



churches were not reserved for sacred acts. People held meetings and gatherings in churches, some played dice, and there are even examples of local lords using churches to store grain.

Everyday life and the worldly were therefore never really separate from the Church and the spiritual world of the priests, and although artists and sculptors believed in God, they were still flesh-and-blood mortals who might be tempted to sneak sexual references into the decoration. Humour involving bodily functions, sex and nudity was all the rage in the Middle Ages.

The phenomenon is expressed well in Smørum Church on the outskirts of Copenhagen. Here a mural depicts the Last Supper, above which, according to historian Steen Schjødt Christensen, "Two men are tied together by a rope around their necks. One of them is standing on the shoulders of another man, who is drawing at his legs at the same time. The other one's foot is held tightly by a woman, while she is whipping him with a birch rod. The man being whipped also empties his gut out to a urinating man standing below him."

Historians believe that this particular image serves as a kind of spiritual reflection of the Lord's Supper. In the Christian Eucharist, the body and

blood of Christ become the bread and wine of the altar. In the human body, digestion transforms the earthly bread and wine into faeces and urine.

Snails played starring role

Monks, who wrote and drew the fine illuminated manuscripts of the thirteenth century, also poked fun at both clerical and secular figures and rituals. In the Middle Ages – before the Gutenberg printing press came into its own in the late fifteenth century – books were produced by hand. Particularly fine works were illuminated with illustrations coated in polished gold or silver to make the text shine as though it were lit up.

The work was commissioned by both churches and the wealthy, and the job of transcribing the holy texts fell to the monasteries' educated brethren. The images were added last, and the illustrators had ample opportunity to leave amusing remarks and small drawings within the book's margins. This they grabbed with both hands, and so the margins and illustrations contained all kinds of mischief, from mysterious cartoon animals to drawings covering both bodily functions and sexual acts. The targets were often the Church's leaders. One drawing, for example,

Insight | Animals were everywhere

Medieval books are full of strange animal drawings in the margins. The illustrations are so strange that it's impossible to give a precise answer to the thoughts behind them, but most historians guess that the animals had both a humorous intention and an abstract meaning.



SNAILS appear as powerful enemies that even the knights dread. One theory is that the small, slimy creatures represent death and are therefore an adversary that everyone must fear.



FOXES It's not just a battle between humans and animals that goes on at the margins. Animals also fight each other, including here, where an army of foxes tries to capture a castle occupied by apes.

depicts a bishop huddled naked on a tree branch, trying to reprimand a priest who – sitting further out on the branch – was defecating.

Images of people breaking wind or showing their bare bottoms are also popular, as are sexual references. For example, one picture shows a nun picking severed penises from a tree as if they were fruit, then neatly placing her harvest in a basket. Other images show ordinary activities such as a scribe illuminating a manuscript, while others depict monsters and strange animals such as man-like monkeys and oversized snails.

The many illustrations of snails are one of those references that give historians headaches. The snails are depicted with lances or swords giving battle to brave knights wearing full armour. Some scholars believe that the snail has a profound theological significance. The snail and its shell, where the snail hibernates in winter, are symbols of death and resurrection. The theory is based primarily on the fact that some of the snail images are placed next to drawings of Lazarus, whom Christ raised from the dead, according to the New Testament. Other historians believe the snail drawings were intended to insult the Lombards, a Germanic tribe that ruled much of Italy in the years 568-744. The Lombards were unpopular throughout Europe in the thirteenth century – when the snail paintings were made –

not least because some of them lent money at high rates of interest. In addition, the Lombards were widely believed to be unreliable, treacherous and, above all, cowardly. This was a trait that medieval people associated with the snail, because the snail reflexively withdraws its antennae – and even its entire body – into its shell when threatened.

Neither theory can explain why the snail sometimes wins the battle. Indeed, many researchers believe that the images were simply intended to be humorous. They argue that the knight was a figure of ridicule to be laughed at when he was terrified by his armour-clad, but otherwise unimpressive, opponent.

” The snails are depicted giving battle with lances or swords to brave knights wearing full armour.

Images were covered up across Europe

It was not until the 1990s that scholars began to take a serious interest in the drawings, which until then had been dismissed as insignificant scribbles by bored monks. Historians now know that the drawings are found in manuscripts across all of Europe but are most common in England and Northern France. What the images represent, and how they found their way into the holy books, is not known. Many of the symbols are incomprehensible to us today because they referred to people and events that were known at the time but have since long been forgotten – just as different generations today fail to ➤



APES are man's closest relative and were also used in the Middle Ages to represent human life. Monkeys appear as musicians, bakers and, as depicted here, knights in battle against yet another snail.



RABBITS often act as brutal killers, murdering and then skinning humans. Perhaps the intention is to show the 'upside-down world', where small animals rule over humans.

Lewdness was everywhere

Rape scenes, naked breasts and monks defecating. The bizarre art of the Middle Ages has been found in churches and books all over Europe – a clear sign that the phenomenon was widespread and popular.



The wimple shows that the woman was married.

Nudity is indicated by the woman's bare legs.

Churning butter was a typical female occupation. In the picture, the woman is depicted as a temptress.

The Virgin Mary shows her bare breast

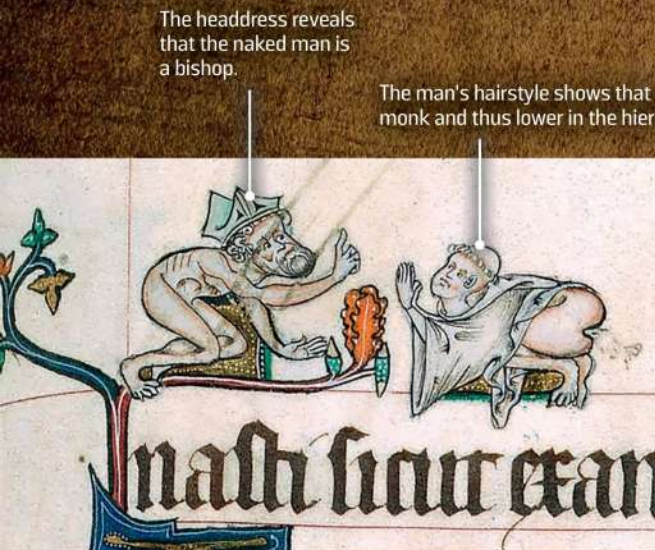
The Virgin Mary exposes one breast in Jean Fouquet's painting on the right panel of the Collegiate Church of Notre-Dame in Melun, France. According to tradition, King Charles VII's mistress, Agnès Sorel, was the model. Fouquet painted the picture in around 1452.



Supposedly, the Virgin Mary's exposed breasts symbolise the spiritual nourishment of Christianity, but the baby Jesus shows no interest in suckling.

Nearby devils adorn the church wall

Among the frescoes in Tuse Church on Zealand are several bold scenes. In one of them, two devils grab a woman who is churning butter. One grabs the woman's shoulders from behind, as if he wants to have sex with her. The other grasps the stick the woman is holding in her hands. Research suggests that the piece was painted in the fifteenth century, but the artist is unknown.



The headdress reveals that the naked man is a bishop.

The man's hairstyle shows that he is a monk and thus lower in the hierarchy.

Bishop goes to admonish monk

A naked bishop confronts a monk who openly defecates in front of him. Drawn in the margin of the *Gorleston Psalter* – an English book that reproduces the biblical psalms – the image is intended to ridicule the bishop, a high-ranking cleric. The image was made between 1310 and 1324 by an unknown artist.

understand each other's cultural references. However, historians believe the drawings are an expansion of explanations the monks wrote in the margins as a kind of note. Over time, the notes became increasingly abstract – a kind of philosophical exercise for the educated.

At the same time, the drawings were a form of protest, as they turned the prevailing order on its head in the same way as when jesters made fun of kings and princes. Medieval society was strictly hierarchical, with the Church at the top and the aristocracy and peasants beneath, and although it can be hard to comprehend, satire in the Middle Ages was not only viewed as subversive. The drawings allowed the lower classes and other people who read or looked at books to vent their frustrations by laughing at senior Church leaders. By giving the common people the opportunity to laugh at a farting bishop, for example, the illustrators helped defuse any potential tensions that might lead to rebellion.

Historians also argue that people in the Middle Ages had a much coarser sense of humour than we have today. People lived in much closer proximity to each other, and so, for example, were less sensitive to smells than we are today.

Toilet humour was generally perceived as funny, not crude. The fact that the creators of religious scripture included such jokes in the holy books gives us a more nuanced picture of the times. The many satirical, mischievous and whimsical drawings provide valuable insights into medieval daily life and tell us that everyday life and human interaction were about more than just prayers and the plague.

The men victimised by the women shown in a picture from the poem *Roman de la Rose*, however, did not have much to laugh about. The poem is a tale of love and sexuality from the thirteenth century. In the picture, women in nuns' habits pluck well-grown penises from a large tree and jealously place them in their large baskets.

In 2000, archaeologists uncovered a painting with practically the same motif on the Fonte Nuova fountain in Massa Marittima, Italy. Painted in 1265, the similarity between the two images leads historians to speculate that they symbolise the Church's fear of female sexuality. The priests believed that women, with their bodies and impure minds, could tempt and corrupt men, who thus became easy victims for the Devil and his work.

The ability of women to make men's penises 'disappear' is not only known from paintings. There are references to women who steal



Sheela na gigs adorn churches and the countryside across the British Isles. The figure with open labia may be a depiction of an ancient Celtic fertility goddess who has found her way to the church.

men's sexuality in *Malleus Maleficarum* (*Hammer of Witches*), the Catholic Church's infamous treatise on witchcraft persecutions:

"And what, then, is to be thought of those witches who in this way sometimes collect male organs in great numbers, as many as twenty or thirty members together, and put them in a bird's nest?" asked the priest Heinrich Kramer in *Malleus Maleficarum* in 1487. Kramer also described in detail how the women stored the penises in a special phallus tree.

Mysterious vulvas adorn churches

Female sexuality is also the theme of the sheela na gig figures, figurative female carvings found across Europe's medieval churches and monasteries. Hewn from stone or carved in wood, the figure is known for spreading her legs to expose her genitals.

The sheela na gig is most common in the British Isles, but archaeologists and historians have also seen the figure – whose name is probably derived from the Irish *Síle na gcíoch* (Julia of the breasts) – in continental Europe, such as inside the monastery of San Pedro de Cervatos ➤

Tools | Palette



OIL PAINT Medieval artists soaked their brushes in oil before mixing it with pigments to create different colours.

RECONQUISTA

The reconquest of the Iberian Peninsula (present-day Portugal and Spain) between 722 and 1492. The conquest ended with the expulsion of the Muslim Moors from the peninsula.

in Cantabria, Spain, and on the baptismal font in Gelsted Church in Denmark.

The figures are mainly found above doors and windows in churches built between the thirteenth and seventeenth centuries but may themselves be much older. Archaeologists who have examined a sheela na gig at Church Stretton Church in Shropshire have concluded that the figure is considerably more weathered than the rest of the church's stonework and therefore more ancient.

What the almost pornographic figures are doing in a church, nobody knows. Some believe the lewd women were placed to scare and distract evil – hence their position above doors and windows. Many, however, lean towards the belief that sheela na gigs have nothing at all to do with Christianity, and that, rather, she's a pagan fertility goddess. The Irish name has led scholars to suggest that Sheela na gig was originally a Celtic goddess who survived the transition to Christianity. The assumption is supported by the fact that, unlike other decorations in churches, many of the figures are crudely crafted – a sign that they were probably made by local artisans rather than more established craftsmen associated with the church.

Sexual figures were a draw

But why did the men of the church choose to allow – and perhaps even encourage – the many depictions of sexual situations in an age when piety and virtue were paramount? The simplest explanation is that the images drew people

to church. The Virgin Mary's exposed breast encouraged young men into church, and hopefully they left with a desire to reproduce.

The church and the priests had a clear interest in encouraging churchgoers to have more children. The more people were born, the more there were to pay the tithes, a compulsory church tax. Historians point out that the need to boost population numbers was particularly great in Spain. Here, from 722 to 1492, the Catholic Church fought the Muslim conquerors from North Africa in a centuries-long conflict that would become known in posterity as the **Reconquista**. In addition, there were the Crusades to the Holy Land in the eleventh to thirteenth centuries. The human toll was enormous, with large numbers of young men losing their lives without leaving any descendants. And then, in the fourteenth century, the Black Death ravaged Europe, killing around a third of its population. This dramatic decline drove an urgent need to bring more children into the world.

In this situation, the erotic images were designed to incentivise procreation. If the theory is correct, it might also explain the masses of idyllic family portraits found in Danish churches. In several places, Eve is surrounded by children. Other depictions show Joseph attending the birth of Christ and later cooking for the family. The images of men in the role of family patriarchs are specific to the Middle Ages and – according to historians – must have also served as an indirect invitation to start a family.

Europe's population rose sharply from the 1350s onwards as the plague abated. Whether the increase was down to encouragement from the Church, or whether the baby boom was simply the result of increased prosperity, historians can't say. Nor do they know what medieval churchgoers thought of the provocative imagery. What scholars do know is that the Danish frescoes caused quite a stir on their rediscovery in the nineteenth and twentieth centuries. In fact, in

some places churches went so far as to demand that the paintings be repainted or retouched. That's why we no longer find the peeing jester in the church at Lyngby. For the congregation, priests and bishops of the Middle Ages, the motif was acceptable inside church walls, but for nineteenth-century folk, a drawing of a man urinating was inappropriate. The spirit of the modern age had revealed itself to be significantly less relaxed than the allegedly pious and God-fearing medieval period. ■

Some believe that sheela na gigs have nothing at all to do with Christianity, and that, rather, she's a pagan fertility goddess with Celtic origins.



WE KNOW FOR SURE

Blasphemy was commonplace

- Art contained both **explicit and hidden symbols**.
- Church paintings often depicted partially or completely **naked people**.
- Pictures and figures showed **people having sex**.
- Bodily functions and fluids such as **urine and faeces were often depicted**.
- The lewd depictions appeared **all over Europe**.
- Vulgar art **went out of fashion** during the Renaissance.

10,998

frescoes have been uncovered in Danish churches. The images provide invaluable insights into medieval art in European churches.



WE NEED ANSWERS

How did contemporary people perceive lewd art during the Middle Ages?

1 Stained-glass windows and other church art were aimed at the common people, the peasants, who could neither read nor write. No sources can therefore tell us how these explicit images were received. Most works were painted or placed in such a way that the churchgoer could interpret them in a religious context. In this

way it became possible – to oneself, to others and to God – to justify the desire to look at them. For the justification to make sense, the images must have evoked some measure of shame or sinfulness – a possibility historians consider likely. Unfortunately, the images and the reactions they provoked are also not documented in the church records of the time.

A headless man fires an arrow at the back of a devil. The symbolism is uncertain and open to interpretation.



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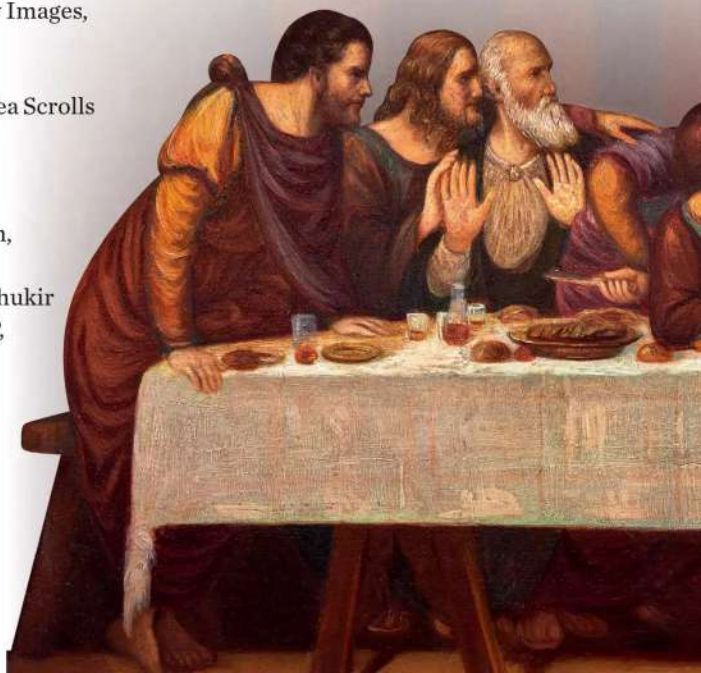
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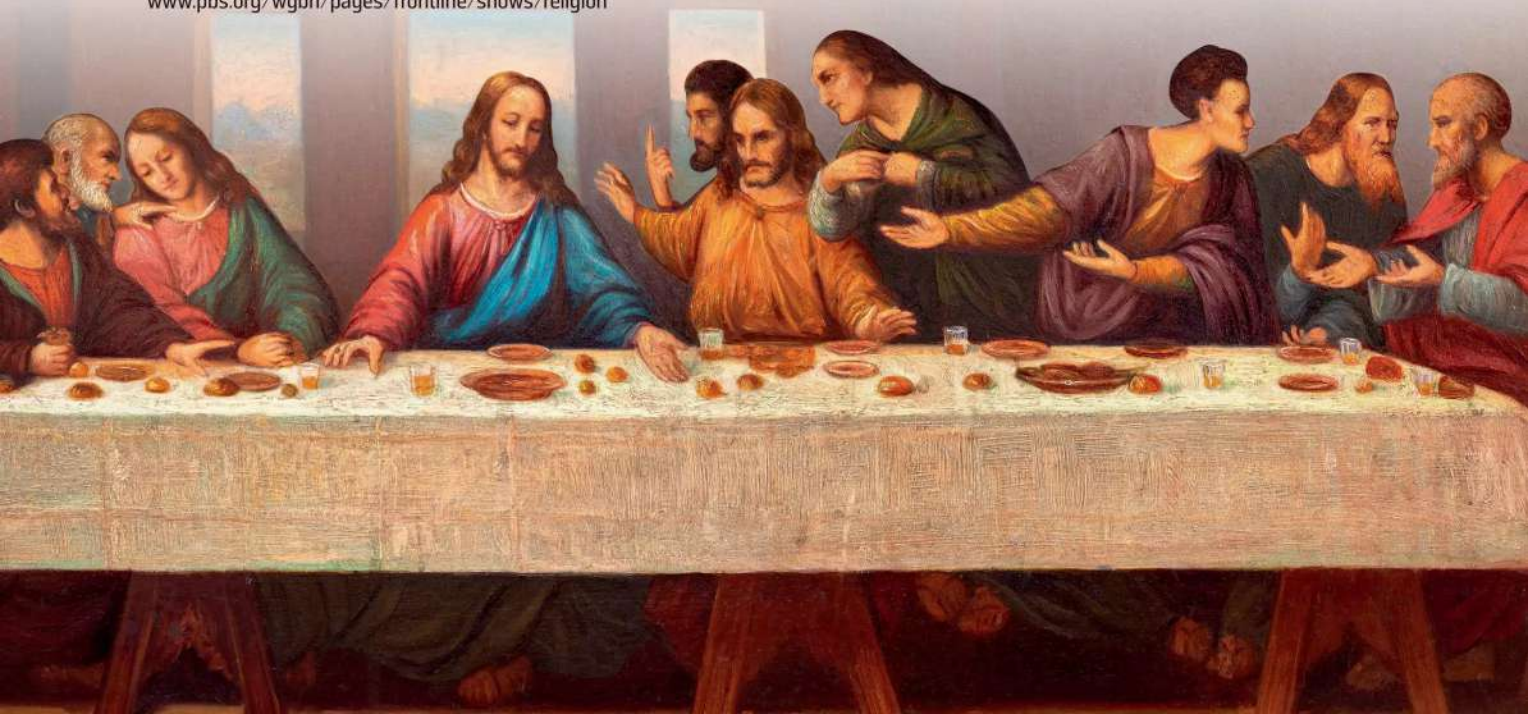
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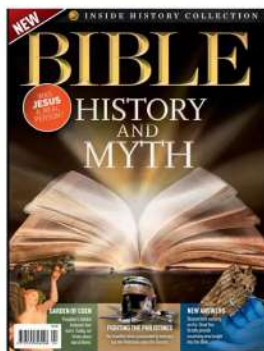
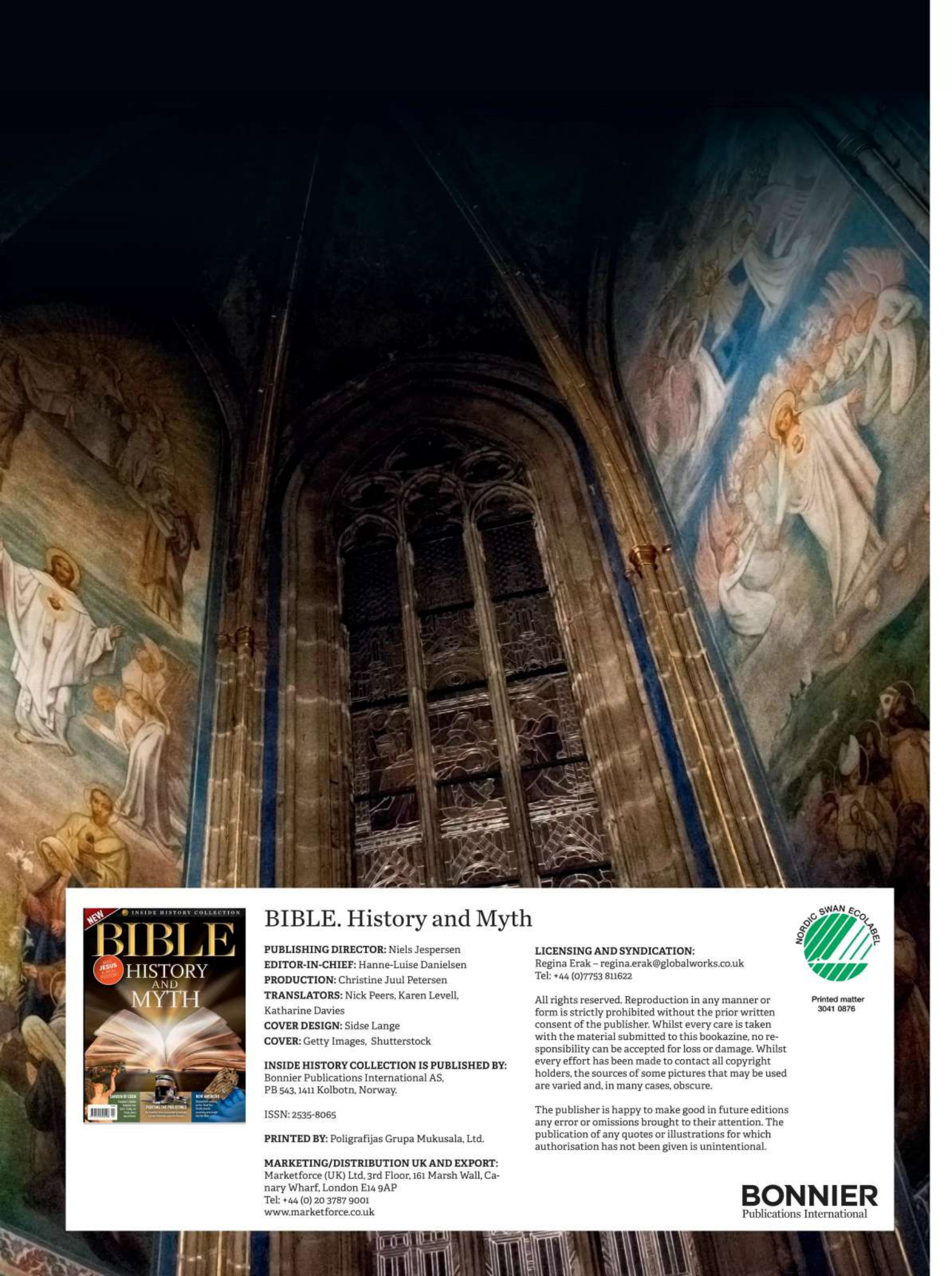
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